AMERICAN ANNALS OF THE DEAF

Official Organ

Conference of Executives of American Schools for the Deaf
Convention of American Instructors of the Deaf

Edited by

IRVING S. FUSFELD

Under the Direction of

IGNATIUS BJORLEE, of Maryland, 1942

PERCIVAL HALL, of the District of Columbia, *ex officio*

FRANK M. DRIGGS, of Utah, 1942

ELWOOD A. STEVENSON, of California, 1945

CLARENCE J. SETTLES, of Florida, 1945

MRS. H. T. POORE, of Tennessee, 1948

LEONARD M. ELSTAD, of Minnesota, 1948

Executive Committee of the Conference

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THE CONFERENCE OF EXECUTIVES OF AMERICAN SCHOOLS FOR THE DEAF

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The Conference of Executives of American Schools for the Deaf, originally the Conference of Superintendents and Principals of American Schools for the Deaf, was founded in 1868 and subsequently incorporated under the laws of the State of Maryland in 1931. The Conference is an organization of the executive heads of schools for the deaf in the United States and Canada, and has for its object "to promote the management and operation of schools for the deaf along the broadest and most efficient lines and to further and promote the general welfare of the deaf."

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The Convention of American Instructors of the Deaf, founded in 1850 and incorporated by act of Congress in 1907, is an organization of educators of the deaf in the United States and Canada with the general object of "promotion of the education of the deaf on the broadest, most advanced, and practical lines," and to that purpose "to secure the harmonious union, in one organization, of all persons actually engaged in educating the deaf in America."

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AMERICAN ANNALS OF THE DEAF

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Making Those Leisure Time Hours Count

By BOYCE R. WILLIAMS, B.A.
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Indianapolis, Indiana

THE Seven Cardinal Principles of Secondary Education are conceded to be the highest aims of any educational institution. Our residential schools for the deaf are unalterably dedicated to them. Health, command of fundamental processes, worthy home membership, vocation, citizenship, worthy use of leisure time, and ethical character are distinct objectives, each unto itself, and yet they are inseparable components of an integrated educational plan. Activities aimed specifically at the fulfillment of one objective are bound to react favorably upon all of the objectives. Growth toward the ultimate of one inevitably nurtures the others. It will be the purpose of this paper to discuss activities aimed specifically at the fulfillment of one of the objectives, worthy use of leisure time, in the belief that such activity is of vital import to the whole program of the institution.

How well any educational institution is fulfilling the major objectives can best be determined by a study of its graduates. The objectives of any program should materialize if at all, in its products. Our graduates are our products and hence the standards by which we measure our success in attaining our objectives.

It may not be necessary to go into detail concerning the use which the average graduate of a school for the deaf makes of his leisure time. The informed reader is quite aware of the fact that the "run of mine" product of our schools DOES NOT KNOW HOW to make worthy use of it. He has an abundance of it, more so than ever before. If

he does not know how to make worthy use of it, then it is probable that in many instances he makes unworthy use of it. It is enough that we realize that a great number of the products of our schools do not have wholesome interests sufficient to absorb their leisure time, interests in which they may expand and from which they may garner the great emotional satisfaction of creating things.

For several years we have been watching the advance of reading as a factor in developing a more worthy use of leisure time in each of the pupils of our schools. We hope sincerely that this objective will be realized to a greater extent than the most ardent of reading enthusiasts has ever imagined. However, in our enthusiasm for reading we must not lose sight of the fact that to a large number of our pupils it is a difficult skill from which they derive insufficient satisfaction for the effort expended. And, considering the deductions of eminent psychologists that a large percentage of the pupils in our schools are doomed to unsatisfactory educational achievement as measured by standard courses of study, we venture to say that a small percentage only are in the near future going to realize from reading a sense of worthy use of leisure time. Accepting the results of the remarkable reading experiments at the Lexington School, we must still acknowledge that several decades will pass before an appreciably larger percentage of our pupils will read with the necessary facility.

Shall we sit idly by during the interim and wait, perhaps in vain, for the reading program to catch up with our educational objectives? The deaf have shown in standardized tests that they more nearly approach the norms of society in skills involving chiefly manual dexterity rather than in those involving chiefly academic power. Why should we then not capitalize on this factor in our activities directed toward the development of worthy use of leisure time?

The dormitory program of the average school for the deaf makes little provision for training in activities to which an adult might devote his leisure time. The academic program aside from limited success in the promotion of reading has little more to show for its efforts. The athletic program and extra-curricular activities, invaluable adjuncts, to any edu-

cational plan, do not approach the problem from the standpoint of the individual. They require group activity, a thing which is available during only a small proportion of a person's leisure time. The vocational program offers much less than it should, but it contains possibilities of great value.

In a number of our schools we find courses in cabinetmaking, wood finishing, art metal work, art leather work, wood carving, photography, ceramics, floriculture, and upholstery. These courses offer the foundation upon which we may develop an appreciation of worthy use of leisure time because they are to a great extent made up of skills involving manual dexterity, the element in which the deaf approach the normal. The materials required to gain appreciable skill under moderately good instruction are within the financial means of every school. So, too, are any of them within the purse of the average deaf adult. Each can be made available in the home in very limited space. Each contains unlimited fields of exploration for the eager, inquisitive worker. Fascination grows with success and success generates enthusiasm. Each is potentially a hobby which will pay considerable emotional and material dividends. Each is definitely a worthy use of leisure time.

Activities to which leisure time is to be devoted seemingly should not be taught during the pupils' leisure hours. This pedagogical approach might actually defeat the purpose in that it would create a fictitious situation in which there would really be no leisure. A much more likely approach would be one based upon initiative. When opportunity presents itself, initiative quickly follows. Therefore, our key to the problem of developing activities accepted as worthy use of leisure time must be the creation of opportunities for doing so.

From previous sketchy references to departmental programs in average residential schools for the deaf, it follows that we create very few opportunities for our pupils to cultivate leisure time activities. Because of this situation, the deaf child has frequently been said to lack initiative. However, only very meager is the chance for the expression of initiative in environments so thoroughly regimented as are our schools.

With the gist of the preceding paragraphs as our point of departure we have the past year in Indiana instituted a program which promises to be far reaching in eliminating the causes for seeming lack of initiative on the part of our pupils. Furthermore, it is directed specifically at the development of leisure time activities. We have named it Opportunity Hour.

On certain evenings of each week (determined by the institutional program of that period) and on Saturday and Sunday afternoons the woodworking and general shops of our school are open to those boys who wish to make something for themselves or for others. The only restrictions are that the article which the boy is planning to make must be reasonably within the scope of his acquired skills, that a project once started must be completed, and that a bill of materials must be made out by the boy. The materials must be ready for him before he begins his evening shop activities.

In the beginning we limited the eligibility to boys who had had at least two years of shop experience, or who were old enough to use average discretion in the handling of tools and materials. Use of machines in construction was discouraged, except in wood turning, because the future leisure time of these boys is very apt to be devoid of such equipment. We wish to develop activities which are centered around hand operations. Hence we have encouraged the boys to make things by hand rather than by machine and expensive tools.

The result of this encouragement is that we have a large turn-over of boys who are making things for themselves or their folks during their leisure time. A few of the more expert are earning pin money by making things for other people. Their field of activities encompasses cabinetmaking, wood finishing, art metal work, art leather work, wood carving, wood turning, wood burning, upholstery, and photography. We hope that as our facilities increase we can enlarge this field to include activities such as floriculture. In this instance the opportunity is lacking. We do not doubt the initiative. There is no reason why we should. In every instance where the opportunity has appeared, the initiative has immediately come to the surface.

The boys have not been required to buy the things which they have made. Surprisingly, the supply of unclaimed projects which we have on hand does not amount to two dollars in actual value. The boys buy most of their products or sell them to others at a small profit. We should not mind if the value of their unclaimed projects amounted to a great deal more than it actually does so long as the objectives of our program were being so fully realized.

No traditional teaching by instructors has taken place. Teachers have worked with boys and boys have worked with each other. All have learned. All have enjoyed themselves. More than 2,000 Opportunity Hours have been enjoyed by the boys in six months. More than 200 projects ranging from end tables to leather watch chains have been made. The great majority of these articles have cost less than fifty cents.

The administrative problems in this program are few. An attendance chart which the boys check themselves keeps tab on the enrollment. When the program was new, teachers and supervisors on duty attended the shops with the boys. As time passed, a few boys stood out in their interest in the program, in their capacity for leadership, and in their sense of responsibility. The cloak of authority has gradually been vested upon them. They are leaders who have been allowed to lead. There has been no noticeable resentment of this situation. Accordingly, teachers and supervisors already under a full program have not been seriously inconvenienced by additional work arising out of Opportunity Hour. This does not imply that a group of immature boys are given the run of our shops. It does mean that there is more time available (at least one and one-half hours each evening) for the boys to work in the shops as they do not need to wait upon an authority tied up in other duties. We have no reason to doubt the wisdom of allowing natural leaders to exercise their qualities of leadership. Rather do we feel that this judicious investment of authority is an excellent byproduct of the whole program.

Very few changes in the institutional routine to allow more time for Opportunity Hour have been necessary. The most important of these, curtailment of the traditional

compulsory study hall in favor of directed study in the classroom and volitional evening study, was a progressive step toward which we had been working previously.

We feel that we are on the path to a better deaf citizenship in our efforts to do something about the leisure time phase of our educational program. We feel that the whole school set-up is considerably augmented by it, that the realization of all of our objectives is considerably affected by its success or failure, that textbook achievement does not limit the individual's possibilities of initiative nearly so much as we had thought, that even the very dull boy, academically can and will pursue a worthy hobby if he is given the opportunity. We feel further, and perhaps this is the most important consideration, that we have but scratched the surface in our discovery of the tremendous educational power inherent in the opportunity to make worthy use of leisure time.

The Slow Pupil

By W. THEODORE GRIFFING, B.A.
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THE SLOW pupil will always be with us. The profession is gradually coming to recognize this as a fact, else how do we explain the awakening interest in vocational training? There can be but one answer: We do realize the slow pupil exists; and we are attempting to meet the problem of his education, or training, in the most efficient manner by bringing him more and more into contact with a vocational atmosphere. We are coming to understand, also, that we have permitted our vocational projects to lag rather severely all these years, and that unless we hasten to keep apace with the trend of modern education, we shall soon be hopelessly behind the field. This is something we can ill afford to let happen.

This subject, that of the slow, or problem, pupil, is one of such fascination that no true educator of the deaf can lightly pass it by. It demands more attention than a mere shrug of the shoulders. We cannot close our eyes to the gravity of this phase of our educational efforts because that would be shirking our duty. We know that each child coming to us is a charge, one to help to the best of our ability, no matter to what extremes we must go that he may have his chance at a happy adult life. The slow pupil is a direct challenge. He seems to hold out his hands to us, mutely pleading for the help and the encouragement he so needs to travel that long road which stretches ahead, so rocky and so difficult. When we think of all this, we will confess that this particular type of child is our problem and that we are going to make an extra effort to help him.

Nature has shown us in more ways than one that certain pupils will never shine in a classroom. These we reluctantly classify as slow, or below the average in intelligence. These are the ones who need us the most. It is our task to set their feet on firm ground that they may, in later years, find their way about unaided. As we set about to do this, often a bit bewildered and uncertain, we can do well to eliminate certain of the academic frills. There are many subjects in-

cluded in our present-day curriculum which we can safely discard in the training of the slow pupil because he is not going to find them of much value once school days are over. We can keep the essentials which, after all is said and done, simmer down to the three R's made famous by the little red schoolhouse of long ago.

This may seem rather an abrupt statement, but it is nevertheless true. We can at least be honest among ourselves and admit that Johnny is not going to land a job because of his ability to bound Oklahoma, by being able to give the principal parts of the verb *jump*, or by knowing when and where General Braddock surrendered. It would be a comfort and a help to know such things, certainly, but Johnny's prospective employer is apt to be far more interested in what he can do to become an asset to the firm he seeks to join as a workman. In short, his hands will be called on to speak for him, and how well they can do that one task will spell the measure of success he can hope to enjoy as a bread-winner. In a true sense, we cannot really educate Johnny or others of his kind; but we can train these pupils to handle their tools with the skill of a finished workman; we can give them poise and confidence as they go about this serious business of earning their bread and butter by the sweat of their brows. When we are able really and truly to do this, we shall have gone a long way in our effort properly to adjust them for after-school life. The ability to work and to care for a family is an accomplishment any person, deaf or hearing or otherwise, takes pride in.

We do not say that all classroom work is a waste of time; we merely suggest that certain parts of it be discarded for the good of the pupils who stand to profit by such a course. A slow pupil needs special vocational training in great big doses. He will also need a working command of simple English whereby he can make his wants known and to enable him to follow the instructions of those he serves. He will need the fundamentals of arithmetic. This part should not prove difficult; but spare him, please, much of the complicated matter which somehow finds its way into the textbooks of today. He should be encouraged at every turn to acquire the reading habit, for this goes hand in hand with the constant struggle for mastery of the English language.

In later years he will appreciate this because, isolated from his fellow deaf, he will certainly turn to reading if he can pursue the recreation with profit and pleasure. We firmly believe that these pupils should have the benefit of lectures given by qualified members of the faculty and by successful deaf persons without the school. These informal sessions can be made most educational if the subjects be limited to things and conditions which will confront the pupils when they leave school. We have in mind such things as government, banking, taxation, insurance, citizenship and others. They would pick up much information on these things that they would otherwise lose were they compelled to labor over difficult textbooks.

It may be judged from the above that we hold it superfluous to demand that slow pupils attend all classroom sessions required of the average students. The books, in many instances, would be so much excess baggage. We maintain that more good would result were these pupils given more time in some vocational class where their hands would be trained to do the things demanded of them by any employer.

All this would bring about the creation of a new department. Not the manual! We already have that evil with us, which fact should occasion us no little shame. There is no need for it. The slow pupils dislike the term for obvious reasons. When they are shunted to this so-called department after a none-too-happy experience in others, they are subject to the ridicule of the more fortunate pupils, those who are able to carry on their work under normal conditions. Some call the manual department a school's "dumping grounds." This is so because it is regarded as the last resort for pupils who cannot fit into any of the other departments of the school. Small wonder, then, that many of the slow pupils fold up and do little or nothing once they arrive in the manual department, which has no business existing in any of our schools.

We could create a special department, make it dignified, and a division of true activity. It could be called the Rehabilitation Department. We would really be rehabilitating these pupils. We believe they would respond better were they to realize they were not being "dumped" because

of their slow progress. True, this would call for extra operating expenses, all running into a tidy sum, but in the end this would pay dividends. The state would not be called on to contribute to the support of these pupils in later years because they, in this special department, would be made self-supporting to a large degree. This would also call for a thorough revision of the system now in vogue; it would bring about no little inconvenience at first, but all of the good things of life usually exact a price. The other pupils would, of course, go on in much the same way as heretofore, but extra vocational training will certainly do them no harm.

We pride ourselves on our ability to send a few of our products to Gallaudet or to other places of higher learning. This is a fine thing and perfectly all right as long as we do not lose sight of the fact we are also sending a great many more out into the world poorly equipped to compete in this vast industrial sphere. Will we and our work be judged by the few we send to college, or will it be wondered why we have been able to do so little for the many others? They will argue that ours is a special school, staffed and manned by trained teachers, and that we should at least be able to turn out products capable of taking care of themselves, able to make themselves understood and to understand others about them.

We can recall the parable of the Lost Sheep. The Good Shepherd was concerned when it did not appear. The ninety and nine were safe within the fold, so He set out to find this one. In our case, the numbers might easily be reversed. We should want to do more for the ninety and nine who are definitely not college timber. We should seek them out in their special fields of natural endeavor and of usefulness, then to lead them successfully and happily into the broader pastures of life. A moment of quiet meditation and the purpose of a school for the deaf will come to us: The greatest good for the greatest possible number.

The sooner we set about to give the slow pupil this extra service, the happier we are all going to be. Since he will always be with us, the question is: What are we going to do about it?

The Case for Rehabilitation

By WARREN M. SMALTZ, M.A., S.T.B.
General Missionary to the Deaf, Protestant Episcopal Church
Lebanon, Pennsylvania

WHEN, early in 1936, Dr. Walter B. Jones, chief of the Division of Industrial Education in the Pennsylvania State Department of Public Instruction, and the writer made some independent inquiries regarding the placement of the deaf in gainful employment by the State Employment Service and the United States Employment Service, the same conclusions were reached. The inquiries were similar. Did the Employment Service have deaf applicants for jobs? They did. Had the Service succeeded in placing any of the deaf? No. Why had they not succeeded? Because the deaf applicants were unskilled workers, and such labor was a glut on the market.

Further inquiries made by the writer as to the possible effects of the State Workmen's Compensation Law upon employment of the deaf in industry failed to reveal any detrimental consequences. Insurance companies disclaimed any desire to refuse coverage on deaf employees, and in some instances pointed to existing policies to substantiate their statements.

Moreover, personal acquaintanceship with some two thousand deaf people in the state tended to show that those deaf persons possessed of a skilled trade were less apt to be unemployed than the ordinary mill hands and laborers. The conclusion seemed inescapable that there existed a need for industrial re-education among numbers of the deaf if they were to become gainfully employed once more. Technological progress in industry has been tremendous, and the advent of every new machine throws scores of unskilled laborers out of jobs. To create a state agency to find jobs for unskilled workers when few such jobs existed seemed the height of futility.

Only two courses appeared available: (1) Either the unemployed deaf would have to depend upon relatives and charity, or (2) They would have to be vocationally re-educated or "rehabilitated."

Common humanity ruled out the first alternative. There then remained the second one. But how should we go about such industrial re-education of the deaf? Send them back to our residential schools? Impractical. Induce employers to take deaf apprentices and teach them a skill or trade? Excellent idea, except that the country was in the depths of an industrial depression, and employers already were overburdened with difficulties beyond the ability of many of them to cope with. To expect industry, unaided, to assume the task of rehabilitating hundreds of deaf people under such conditions was clearly out of the question.

There remained the possibility of placing apprentices in industrial establishments and reimbursing the employer for re-educating them industrially. There was, likewise, the possibility of enrolling other unemployed deaf persons in vocational and technological schools. Thoughts such as these led up to a study of the entire rehabilitation program as then established by law in Pennsylvania.

The General Rehabilitation Law, known as Act No. 418, was enacted by the Pennsylvania Legislature as long ago as 1919. It created the present Bureau of Rehabilitation in the State Department of Labor and Industry. Nothing in the original law could be construed as extending the services of the Bureau to deaf people.

In fact, the law appeared to have quite the opposite intent. Section 1 of the Act defined a physically handicapped person as "any resident or residents of the Commonwealth of Pennsylvania whose capacity to earn a living is in anyway destroyed or impaired through an industrial accident occurring in the Commonwealth." Then Section 2 hastened to add that the duties of the new Bureau were not to be construed to apply to "aged or helpless persons requiring permanent care, or to blind or deaf persons under the care of any State or semi-State institution."

Deafness resulting from an "industrial accident" is comparatively rare, and few such cases came to the attention of the Bureau since the time of its creation. Meanwhile successive directors operated the Bureau with the understanding that its services were not legally available to the rank and file of the deaf.

Soon after Pennsylvania inaugurated its rehabilitation service, an act of Congress approved June 2, 1920 made Federal funds available to the several states for "vocational rehabilitation of persons disabled in industry or otherwise, and their return to civil employment." Although the deaf were not actually designated as eligible, the U. S. Office of Education made a very liberal interpretation of the intent and purpose of the act, so that a few states, notably Minnesota, provided vocational re-education for a limited number of deaf persons with the help of Federal grants.

The Federal law exacted certain requirements of the states in order for them to become eligible for monetary grants. Therefore in 1921 the Pennsylvania Legislature amended its own Rehabilitation Act to make it conform to Federal stipulations. Under the new set-up the Department of Public Instruction and the Department of Labor and Industry were given joint supervision of all rehabilitation cases involving the expenditure of Federal funds. But as amended the new law again included verbatim, in Section 7, the declaration that "blind or deaf persons under the care of State or semi-State institutions" were to be considered ineligible for assistance. By inference, this was interpreted to mean that *all* deaf persons were ineligible, and the Bureau operated accordingly.

Then a succession of amendments to the Federal statute, notably the one sponsored by Senator Couzens in 1936, began to designate the deaf as persons eligible for industrial re-education. But still the Pennsylvania law ignored them in this respect.

This was the situation when, in 1937, Act No. 94-A was approved, amending the Pennsylvania Rehabilitation Law. The act itself was drafted only after long and painstaking study of prior state and Federal laws; and of existing state and Federal agencies, their operation and facilities. It was felt that this would be more feasible than an attempt to create a wholly new bureau in the state government. The act provides that "in addition to the powers granted to the said department (of Labor and Industry), it shall have like powers for the rehabilitation of the deaf and hard of hearing as provided by existing law for the rehabilitation of those

injured in industry and otherwise." So painstaking was the effort made to draft the measure properly, that the nomenclature "deaf" and "hard of hearing" was purposely employed because it had been promulgated by the Conference of Executives of American Schools for the Deaf a few months previously.

The act carried an appropriation for the then-current biennium of $30,000 which, with a like sum in Federal grants, made a total of $60,000 for the purpose. Thus duly authorized and empowered, the state Bureau of Rehabilitation at once began to extend its services to the deaf. Four district Field Agents were appointed, and charged solely with the vocational re-education and industrial rehabilitation of such deaf and hard-of-hearing persons as might require such assistance. Since the time when this new set-up was inaugurated, late in 1937, the startling total of 1,257 cases have been referred to the Bureau. The present case load, as of March 1939, is 217.

A casual inference might be that these facts represent an implied criticism of the vocational training now available in our schools for the deaf. But such a sweeping conclusion is certainly not justified. It must be remembered that the services extend also to the hard of hearing, a majority of whom have never enjoyed instruction in a residential school. Then there are today numbers of deaf persons whose education was obtained in parochial and day schools, most of which make no pretense at supplying vocational training. Finally, there is a state-owned residential school which likewise provides little in the way of bona fide vocational training.

The truth is that those residential schools in Pennsylvania that have provided vocational courses have really done very creditably. It might be said of them that the industrial training offered should be more adequately integrated with the academic instruction. Greater stress than formerly was the case might well be put upon written English and applied mathematics. But no sensible person will argue that the vocational training given our deaf children in the past has not been most helpful.

What we must do today is disabuse ourselves of the idea

that a residential school can provide *all* the industrial training required to fit the pupils for successful living in a great industrial state like Pennsylvania. We cannot hope to install a complete assembly of modern machinery, with the necessary teaching personnel, to give instruction in a wide diversity of modern skills. Even if the facilities could be made available, the passage of a few short years would see the entire equipment already antiquated and obsolete, as technological perfection in industry advances.

What we should carefully consider is the possibility of providing our deaf graduates with a kind of extension course in vocational education. We take it as a matter of course if the graduates proceed to enter high school or college for further academic instruction. Why, then, should we not consider it equally proper if other graduates enroll for continuation or extension courses in industrial training?

It is possible that the term "rehabilitation," with its various connotations, has blinded us to the possibilities inherent in the plan now in operation in Pennsylvania. Properly applied and administered, that plan contains the essentials for a splendid vocational training for our deaf men and women. By all means let our schools continue and further develop their own vocational departments. Then, upon graduation, such students as may require it could be further trained under the aegis of the present Rehabilitation Bureau, whether in trade schools, institutes of technology, or actual industrial establishments. Certainly this would be the most practical and economical plan for giving them an adequate industrial education and training. It would permit a development of a diversity of skills, and thus enhance the employability of the deaf. It would enable the deaf man or woman to adopt a trade or skill having employment opportunities in the actual locality of residence. And it would tend to facilitate placements, since employers under whom such students received their final training would be more apt to understand the unquestioned abilities of the deaf to pursue successfully a majority of the skills in modern industry.

Vocational Guidance in Schools for the Deaf—I

By Alan B. Crammatte, M.A.
Instructor in the New York School, White Plains, New York

Introduction

It has long been recognized that in order to turn out happy and well-adjusted citizens, our schools must provide our deaf pupils with a competent grasp of the vocations in which they can individually meet with the optimum of success. It is the contention of this paper that vocational guidance, properly administered, will aid greatly in providing deaf children with the competence needed to secure and hold employment in the work which suits their abilities and interests.

Whether schools for the deaf are providing the maximum of vocational guidance possible will be the subject of this paper. The problem will be attacked by studying the guidance plans of public schools, seeking the phases of vocational guidance in which the schools for the deaf are particularly strong or weak, assaying their fitness for use in schools for the deaf and suggesting means by which vocational guidance might be extended in schools for the deaf.

Vocational guidance has been variously defined, some definitions covering only a part of guidance work and others making vocational guidance all inclusive, making all phases of the educative scheme components of the guidance program. The definition employed in this study will be that adopted by the National Vocational Guidance Association in convention in 1924: "Vocational guidance is the giving of information, experience and advice in regard to choosing an occupation, preparing for it, entering it, and progressing in it."[1]

Vocational Guidance in the Public Schools

Methods and Extent.—In examining the methods and extent of vocational guidance in the public schools, the study

[1] Cohen, David I., Principles and Practices of Vocational Guidance, Century, New York, 1929, p. 45.

will be divided into eight subdivisions in order to facilitate comparison with the guidance work done in schools for the deaf. These subdivisions are: (1) Prevocational courses, (2) exploratory courses, (3) occupational information, (4) psychological testing, (5) counseling, (6) specialized courses, (7) placement and follow-up, and (8) continuation schools. Most of the information used here was found in *Vocational Guidance and Junior Placement*,[2] a study made by the Children's Bureau in 1926. This is a comprehensive and detailed survey of vocational guidance programs of public school systems in various parts of the country.

Prevocational Courses.—All the cities surveyed by the Children's Bureau had prevocational classes, these being devoted to training the hands and eyes of those not able to cope with the regular course of study. The objective of these courses is to give the retarded pupils the stimulus of a new educative situation and emulative motivation, a homogeneous grouping and a course of study at the level best suited to their abilities. Self-discovery is another objective of such courses.[3]

Exploratory Courses.—All of the cities surveyed by the Children's Bureau had exploratory courses of some sort; the cities having junior high schools had the most elaborate courses. The objective of an exploratory course is to give the child a general idea of the customs and working conditions in several trades and to discover special interests or aptitudes before the pupil selects, or is placed in, a specialized course. Subjects offered included: Wood and metal working, electrical work, printing, machine-shop practice, auto mechanics, business practice of various kinds and typing. These courses are rudimentary. Pupils rotate among several different subjects, spending a certain portion of the year in each. Methods of rotation vary: In some cases pupils spend several weeks in each shop; in others they rotate from day to day, and in still other cases they study in a general utility shop where different trade practices are taught.[4]

Occupational Information.—Occupational information

[2] U.S. Children's Bureau, Publication No. 149, Government Printing Office, 1926.
[3] *Ibid.*, p. 4.
[4] *Ibid.*, p. 3.

courses were offered by a majority of schools, these varying from occasional lectures by business men to planned courses covering several grades. The Grand Rapids system[5] attempts to co-ordinate occupational information with academic "tool" subjects, such as English composition and mathematics. The National Occupations Conference publishes pamphlets and collects literature containing occupational information.[6]

Psychological Testing.—The question of the value of psychological testing is a controversial one, some maintaining that psychological tests are of little or no value in vocational guidance while others recognize the lack of development in the field and the unreliability of some tests but hold that through research and development of test batteries a valuable addition can be made to the tools of vocational guidance.

In measurement of intelligence some authorities hold that although there seems to be a consecutive arrangement of occupations by intelligence levels, the overlapping among occupations is too great to allow precise use of them;[7] others maintain that "ultimately research will determine the minimum intelligence quotient necessary for success in each leading occupation."[8] Vocational guidance bureaus make little use of the intelligence ratings, except in some cases for assigning pupils to vocational courses rather than to the academic subjects. All cities, however, reported some sort of testing officer or bureau.

Achievement tests are widely used for educational guidance and in some cities for vocational guidance.

Aptitude tests have not been developed sufficiently to warrant wide usage in guidance, Seashore's test of musical ability being the only very accurate one. Toops found that the Stenquist Mechanical Ability Assembly Test, the I.E.R.

[5] For a description of the Grand Rapids plan, see: "Outline of Work in Vocational Guidance in the Public Schools of Grand Rapids, Michigan." *Grand Rapids Public Library Bulletin*, October, 1913, v. 9. pp. 133–40.

[6] Headquarters at 522 Fifth Avenue, New York City.

[7] Brewer, John M., *et al.*, Mental Measurement in Vocational and Educational Guidance. *Harvard Bulletin in Education*, No. 10, Cambridge, 1924, p. 17.

[8] Myers, George E., The Problem of Vocational Guidance, Macmillan, New York, 1929, p. 88.

Girl's Assembly Test, the I.E.R. General Clerical (high level) and the I.E.R. General Clerical C-2 (low level) correlated highly with the vocational school work of 2,000 children between the ages of thirteen and sixteen. Toops planned to follow up these children and compare their actual working success with the test scores. He rated the Stenquist test "the most important single test of general mechanical ability."[9] Aptitude testing is a new field; continued research may yield tests useful in guidance, but at the present time few schools use them.

Tests of manual dexterity are considered too expensive for the value of their findings and are not at present widely used in guidance. Trade tests, being merely measures of knowledge are not used for prognostication. Tests of personality are holding great interest among research workers at present but the results with these tests are as yet too vague for consistent use. The same may be said of personality rating scales.

In general, very little use is made of psychological testing at present, but many hope that research will devise tests that will prove accurate measures of ability in lines vocational as well as academic.

Counseling.—Counseling in the public school systems is administered in one of two ways: Through a central bureau of vocational guidance or through full- or part-time counselors in the individual schools. The trend in counseling usually depends on local emphasis which may take the following forms: Psychological testing, educational guidance, or knowledge of occupations. Counselors perform the following duties: Directing education in regard to occupations, interviewing children showing lack of ambition or interest in school, examining applicants for work permits and aiding children in their choice of a vocation to study. Aids in their work include: School records, preferably cumulative and including class marks; records of health, attendance and conduct; personal estimates by teachers; vocational plans of the child; psychological test ratings; psychological ex-

[9] Toops, Herbert A., Tests for Vocational Guidance for Children Age Thirteen to Sixteen. Contributions to Education, No. 136. Bureau of Publications, Teachers College, Columbia University, New York, 1923.

amination; reports on home environment; self-analysis blanks and rating scales and the interview. The counselor tries to crystallize the vocational interests of the child, to keep him in school by adjusting family difficulties and to help in finding work fitted to his needs and abilities.

The following tables from the White House Conference on Child Health and Protection will show the extent of counseling in public schools.[10]

EXTENT OF VOCATIONAL COUNSELING

Schools	*Smallest Cities*	*Medium-sized Cities*	*Large Cities*	*All Cities*
With counselors	41	24	34	99
Without counselors	31	18	2	51
Total	72	42	36	150

NUMBER OF FULL- AND PART-TIME COUNSELORS

Counselors	*Smallest Cities*	*Medium-sized Cities*	*Large Cities*	*All Cities*
Full-time	30	43	173	246
Part-time	156	169	314	639
Total	186	212	487	885

Note: Based on data from 77 public school systems. Three others indicated part-time counselors, without stating number. One did not give number or state whether counselors were full or part time.

Specialized Courses.—The Smith-Hughes Law of 1917 was a great aid in the establishment of specialized courses. This law subsidized high schools wishing to add vocational courses of certain types to their curricula and helped bring about the establishment of high schools specializing in vocational and technical training. An example of the specialized school is the Textile High School of New York City which specializes in the textile trades; all branches of the textile industry are taught in this school, the object being to equip its better graduates to be managers of textile factories and its other pupils to find work and promotion in the textile

[10] White House Conference on Child Health and Protection, Report of the Subcommittee on Vocational Guidance. Century, New York, 1932, pp. 43–44.

industry. The objective of these specialized courses and schools is not merely to teach the pupil a trade but to give him a wide knowledge of the industry as well as necessary skills in a particular branch. The Smith-Hughes Law has enabled many of the small and rural high schools to offer courses in vocational training for which their state educational systems do not provide. Especially prevalent in rural schools are courses in vocational agriculture.

Another means of giving pupils specialized training is the co-operative course, in which the pupil spends a part of each day or a part of the year in a regular shop or factory learning the mechanical side of a trade while pursuing studies in school which stress the technical and general factors of his trade. Disadvantages accrue from this plan if the co-operative students are not closely supervised; the child is often tempted to leave school for steady employment, many industries are not suitable for this arrangement, firms using co-operatives sometimes exploit the students and there is frequently little or no educational content in the work. However, the value of such courses in orientating the pupil to a working environment and in providing contacts must not be overlooked.

Placement and Follow-Up.—The only guidance after specialized study is placement and follow-up. Placement takes a form much similar to that of private employment services. The following paragraph will indicate what the placement worker should know about his applicants:[11]

> Complete information about the applicant would include a cumulative school record in courses of study, with supplementary information, estimates, and comments of teachers; a report upon home conditions; history of work experience; a physical examination record; a mental-test rating. No office studied in this survey has all of this information for every child, and few, indeed, have all of it for any child.

Continuation Schools.—Continuation, or part-time' schools were found in all cities surveyed, although they were considered a burden on the school system. Night classes in subjects which co-ordinate with local trades—business English and mathematics, trade ethics and shop customs—are offered in these schools for working youths and adults. Fre-

[11] U.S. Children's Bureau. *Op. cit.*, pp. 60–61.

quently these schools are sponsored by stores and factories, classes being held in storerooms, warehouses and similar places; sometimes the classes sponsored by business firms emphasize loyalty to the firm and working efficiency rather than a general business education. More often night classes are held in the public school buildings and sponsored by the school system.

Summary.—For convenience vocational guidance activities have been divided and studied under eight subdivisions: (1) Prevocational courses, intended to provide sense training, improve the educational situation and fit the course of study to the abilities of retarded children, were employed widely; (2) exploratory courses, providing the child an opportunity to familiarize himself with different vocations by means of simple lessons in fundamental processes and shop practices before selection of a specialized course, were in use in all cities studied; (3) occupational information was offered, in varying degrees, by a majority of schools; (4) psychological testing of mentality, educational achievement, aptitude, manual dexterity, trade knowledge and personality was very little used for guidance, although all cities reported some sort of testing officer or bureau and many leading psychologists hope for useful developments in the field of testing; (5) counseling, an attempt to diagnose and crystallize the child's vocational interests chiefly by personal study and interview of the child, was widely employed and in fact more or less constituted the major portion of vocational guidance work; (6) specialized courses and specialized schools and co-operative courses were employed by many school systems—this portion of vocational guidance being greatly aided in attaining its present wide growth by the Smith-Hughes Law; (7) placement and follow-up, attempts to place graduates in suitable positions, to orientate them to the working environment, and to provide rehabilitation when needed, were used by a majority of school systems; (8) continuation schools, night classes or part-time classes for employed persons, were found in all school systems studied, although a burden on the schools.

In closing this section a quotation of data from a survey

of vocational guidance work in the public schools seems appropriate:[12]

DETAILED PROVISIONS FOR VOCATIONAL AND EDUCATIONAL GUIDANCE IN 635 SECONDARY SCHOOLS

Guidance Activities Provided	*Schools Using Service*	
	Number	*Per Cent*
Surveying local occupational opportunities and requirements to some extent	244	38.4
Studying results of these data and other reports of investigations	171	27.0
Testing pupils' abilities and interests in various ways	212	33.4
Assisting individual pupils in choosing vocational possibilities	351	55.3
Offering vocational training programs	489	77.0
Assisting all pupils in selecting educational opportunities	537	84.6
Offering vocational placement for part-time and full-time employment	440	69.3
Employing some sort of employment supervision and follow-up	195	30.7

EXTENT AND METHODS OF VOCATIONAL GUIDANCE IN SCHOOLS FOR THE DEAF

In ascertaining the extent and methods of vocational guidance in schools for the deaf, the writer examined professional literature, including the ANNALS, proceedings of the Convention of American Instructors of the Deaf and of the Conference of Executives of American Schools for the Deaf, *The Vocational Teacher* and various pamphlets and current publications of schools for the deaf. Also, a questionnaire was sent to the nine schools having vocational principals at that time. In assaying the guidance work done in schools for the deaf the findings have been classified in the same order as was employed in the preceding section.

Prevocational Courses.—From all indications schools for the deaf are fairly strong in prevocational courses. Handicraft, sloyd or some sort of woodwork is offered in a major-

[12] Edgerton, A. H., and Herr, L. A., "Present Status of Guidance Activities in Public Schools," Twenty-Third Yearbook of the National Society for the Study of Education, Part 2, Section 1, Ch. 1, Public School Publishing Co., Bloomington, Ill., 1924.

ity of the schools; all the schools which replied to the questionnaire had some form of prevocational training. In this phase of guidance the schools for the deaf seem to go beyond the public schools in that prevocational work is offered to all children and is not confined merely to retarded classes. Also, prevocational classes are begun early in the child's school life; in one school it is commenced at grade three and the average age at which children enter prevocational classes seems to be between ten and twelve years. In the tabular statement of trades taught in American schools for the deaf published in the ANNALS, January, 1936, 33 out of 64 schools indicated that some form of prevocational work was done—sloyd, manual training, handicraft, weaving or some other sort of hand work. It is probable that many of the remaining schools also offer early training in the use of tools, in the shops where other trades are taught or in the form of informal exploratory courses.

Exploratory Courses.—A survey of professional literature seems to indicate that the average school for the deaf does not have an organized exploratory course. However, certain of the more progressive schools have taken advantage of a situation wherein the establishment of exploratory courses should be comparatively simple since shops equipped for teaching a variety of vocations are already in existence and the pupils are in the same school for all of their educational life. No definite statistics are available on this line of work but indications are that less than a dozen out of 64 residential schools offer exploratory courses.

Occupational Information.—Although the deaf child's need for occupational information is even greater than that of a hearing child, the schools for the deaf seem to be particularly weak in the matter of occupational information courses. While the academic departments of some schools co-operate with the vocational departments in orientating the pupils to his shop and in teaching shop language, there seems to be very little instruction in general conditions of the trade outside of school. Of course some instruction of this sort is given but it is generally incidental to the regular classroom procedure.

Psychological Testing.—Few schools for the deaf employ

psychological tests as aids in vocational guidance, although a number use achievement tests for educational guidance. Considerable psychological testing is done at some schools by colleges and research groups, but the studies are not often directly concerned with guidance. Of the leading schools surveyed by the writer only one used a psychological test, the Stenquist Assembly Test for mechanical ability, and dissatisfaction with the results was expressed for this test.

Counseling.—Very little formal counseling is done in schools for the deaf. There is counseling of a sort but it is usually done by the superintendent, principal, vocational principal or teacher when the occasion presents itself and in addition to regular duties. A few schools have guidance committees which aid in the selection of a specialized course but the committee members are usually not trained in counseling. Four or five schools have placement officers who sometimes aid in counseling. On the whole, what little counseling is done in schools for the deaf is informal and unorganized.

Specialized Courses.—In the presentation of specialized training, schools for the deaf have been pioneers and the heritage of the years has brought a wide knowledge of the subject. In some cases this same heritage has brought about an unfortunate tendency to hold to the ways of the past, but a majority of schools have endeavored to maintain their high standards and to keep up with progress as to equipment and methods.

Vocational training, especially in recent years, has received a liberal time allowance in curricular schedules. According to a survey made by Mr. Harry B. Brown of the Pennsylvania School, from one and one half to four and three fourths hours a day five or six days a week are devoted to vocational training. The vocational training period varies from four to twelve years, 50 per cent of the schools observing a period of from six to eight years.[13]

However, Mr. Brown's study revealed another side of

[13] Brown, Harry B. *Report No. 2 Regarding the Vocational Activities of Pupils during the Past Twelve Years.* Pennsylvania School for the Deaf, Philadelphia, 1932, pp. 13–14.

vocational education not so favorable. In reply to the question, "Is your vocational instruction on a par with your academic instruction in so far as teacher qualification, organized course of study, procedure and school atmosphere are concerned?" 64 per cent of the schools answered in the negative.[14] However, in some cases this may indicate merely a wholesome dissatisfaction with a situation short of the ideal.

It is generally not possible for schools for the deaf to organize specialized schools such as were mentioned previously in this paper; a majority of schools are the only institutions of their kind in their respective states and the comparatively small pupilage makes it impractical to try to organize technical high schools or trade schools. New York City, with its immense population, has made such an arrangement possible and in recent years the three schools for the deaf there have reorganized so that two of the schools specialize in varied and intensive vocational training, one for boys and the other for girls, and the third school specializes in academic training with a curriculum extending through the high school years. In some schools post-graduate vocational courses are offered worthy students and, in others, students not destined for secondary education give a major portion of their time to vocational training in the latter years of their school life.

Co-operative employment of students is practised by a number of schools. State rehabilitation bureaus often aid in placing co-operative students.

Placement and Follow-Up.—Eighty-two per cent of the schools surveyed by Mr. Brown indicated that they would recommend employing a placement officer if financially possible,[14] but not more than five schools are represented by placement officers and most of these are in state labor bureaus. In most schools the superintendent, principal or vocational principal undertakes this responsibility in addition to his regular duties. The state rehabilitation bureaus often co-operate with schools in training and placing deaf pupils. Here again is found a desire for the work but gener-

[14] *Ibid.*, p. 19.

ally no organized provision for it, due probably to financial reasons.

The Colorado Plan.—Perhaps the best organized plan for vocational guidance in a school for the deaf is that begun in the Colorado School by Supt. Thomas S. McAloney in 1927. Dr. McAloney recognized the vocational department as equal in importance to any other department in the school and therefore advocated: High teacher standards and adequate salaries, a vocational principal to supervise the work of the department, frequent teachers' meetings, providing technical publications by the school, modern equipment, small classes, printed lesson material and repair work only when of instructional value. He stressed the need for guidance in selecting a specialized course and suggested as aids in guiding the pupil prevocational work from the time the pupil entered school, a mental age of twelve years as a time to begin specialized study, a guidance committee of school officers and allowing retarded pupils to spend a greater portion of the school day in the shops. Quality of vocational training was considered paramount and for that reason it was suggested that vocational courses be few and efficiently taught rather than many and of mediocre quality and that shop discipline and proper care of tools be insisted upon. The Plan emphasizes shop language by requiring assignments to be written, by co-operation from the academic teachers in correcting vocational language daily and by setting aside a definite period each week for instruction in shop language by the vocational teachers.[15]

Continuation Schools.—Continuation schools as administered in the public school systems have no place for the schools for the deaf. The nearest approach to the continuation school may be found in the post-graduate courses advocated, and to a small extent applied, by some educators of the deaf for many years. One or two summer schools for the adult deaf have been begun but none have been permanently maintained. At least one city school system, Kansas City, Mo., has recently established what appears to be a

[15] McAloney, Thomas S. "The Industrial Education of the Deaf—The Colorado Plan," ANNALS, September, 1927 (vol. 72, no. 4), pp. 326–8.

formal course of evening instruction for deaf adults. A recent outgrowth, also, of W.P.A. projects has been the beginning of evening classes for the adult deaf in such centers as Chicago, Tulsa and Newark. Leagues for the hard of hearing have also been active in attempting such work for their members.

Summary.—Schools for the deaf are particularly strong in prevocational and specialized courses, a condition probably brought about by the type of pupil taught and the equipment available. Exploratory courses, quite as adaptable to the educational situation in schools for the deaf, are not so far advanced. Occupational information, psychological testing, counseling and continuation schools are not well developed in schools for the deaf. A few schools do extensive placement work but a great majority do not. In examining guidance plans one must, of course, keep in mind that educating the deaf is a difficult and expensive field and expenditures for the so-called frills of education are often frowned upon.

[*To be concluded.*]

Printing Job Sheets

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MOST of the textbooks and courses for printing schools contain subject material that is somewhat too advanced for the average deaf pupil and especially for the beginning pupil. It is always a problem to make the study of printing interesting and fascinating to the newcomer. With large classes and various demands on the instructor's time such as production jobs, school paper, rush jobs and the like, it is difficult to give much individual attention and serious thought to actual preparation for beginners.

A good foundation and a knowledge of fundamentals are the important requisites for success in any trade, and especially so in the study of printing. It is very easy for the young printer to become confused and, unless he has material available to study his mistakes, he will become discouraged and lose whatever hopes he had of being a printer. In printing there are many jobs and problems that seem too intricate or complicated but that could be explained readily had the pupil mastered certain fundamental principles.

After a series of experiments with different textbooks, job courses, and various other ingenuities devised, we were making very little headway. Finally we came across some printing job sheets by C. W. Hague, head of the printing department of State Teachers College, Fitchburg, Massachusetts, and found them to be most adaptable to our needs.

These job sheets contain two sets, Number 1 and Number 2. Set Number 1 on General Printing is the elementary set, and carries a good deal of the information and explanations the beginner must know. There are fifteen job sheets in this set and each sheet has the name of the job, the purpose, the name of tools, equipment, and material to be used on that particular job. The procedure in setting up the job is written in full, and the pupil knows what he is doing. Set Number 2 on Advanced Printing is of a more advanced nature. In

this set, a pupil learns how to set tickets, posters, letterheads, advertisements, singular and double tabular forms and the like.

Our pupils are doing remarkably well with the help of these job sheets. Since they understand what they are supposed to do and why, they make good progress. The instructor can check the progress of each pupil. When a job is completed and graded, the pupil distributes his job and proceeds with the next one. Each tries to outdo the other, thus creating competition, and this develops speed in hand setting. The jobs are not so long as to become boresome. The pupils are eager to begin on the next job, knowing that they already have accomplished much on previous jobs. Interest, speed, enthusiasm and a general appreciation of printing are evident.

After marking and correcting his proof, the pupil takes two final proofs on newsprint paper size 6″ x 9″. He keeps one for himself and gives the other to the instructor to file. All proofs are kept in envelopes with the pupil's name attached. The pupil takes pride in making clean and neat proofs as he knows these proofs will be shown to his parents and friends. When applying for employment upon finishing school, these job sheets may come in handy as a sort of recommendation in themselves. The employer would obtain a fairly good picture of the applicant's standing and his knowledge of printing.

Also included with each set of these job sheets are operation sheets which illustrate and explain proper position for setting type, distributing type, removing type from stick and placing on galley, tying type forms, cleaning, lock-up of single type forms, make-ready on a platen press, press feeding, and cutting stock for any given job. Each operation sheet also tells the steps and procedure to be taken.

The International Typographical Union Lessons in Printing are considered the most up-to-date, complete, and accurate lessons available. No printing school should be without a set of these lessons. While they are excellent to have for reference and reading material, they are somewhat too advanced for our average deaf pupils. The pupil could start

on the printing job sheets first, and then he would become familiar with the language and technical terms used in the I.T.U. course.

It may be argued that job sheets do not allow for much creative thinking on the part of the pupil, since most of the planning and thinking has been done for him. On the other hand, some reasoning ability must be used in following these instruction sheets. The pupils will develop certain habits of skill in working through the prescribed job sheets. The instructor can modify any one job to suit his shop or the needs of his pupils. The main thing we get out of these sheets is the language which is written in a way that is fairly understandable to our pupils.

The Instruction Sheets for Printing by C. W. Hague, published by the Bruce Publishing Company, are inexpensive and deserve a trial by printing instructors in our schools for the deaf. They will be found satisfactory, and the results more than gratifying.

Individual Deviations in the Visual Reproduction of the Speech of Two Speakers

An Objective Method of Rating These Reproductions

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The ability of an individual to understand spoken language which he is unable to hear closely parallels that of reading. Like reading, it involves a manifold operation. It is an exercise of vision, that is, recognition, by means of the eye, of movements of a speaker's lips, cheek, jaw and neck muscles, together with the rapid interplay of all facial muscles marking the emotional lights and shadows which betray the speaker's thought. Therefore, since it is a visual comprehension of spoken thought which is inaudible to the listener, and thus becomes for him a substitute for hearing, this ability may be considered "Visual Hearing."[1]

In one who reads in order to understand written expression, as well as the individual who uses visual hearing to understand oral expression, there is evidenced a close relationship between eye movements and thought processes.[2] In each case alertness, rapidity and accuracy of eye movements assist in extracting the correct meaning, whereas a confusion of eye movements creates a confusion of meaning.

However important may be the part that vision plays in the recognition by the reader of the printed characters on a page, their translation into ideas and their final interpretation into logical thought is of even greater significance. Equally significant is the necessity for the individual who must substitute sight for hearing to mould into ideas the rapidly varying play of facial and bodily muscles which give the observer the keynote to the personality of a speaker. By what direct or circuitous route this end is reached has

[1] The popular, though less adequate term "Lip-Reading" is partly synonymous.
[2] Buswell, Guy T., Fundamental Reading Habits.

not been definitely determined by research in this field. Neither has the cause for this wide divergence in ability been discovered. That it is accomplished with widely varying degrees of success by different individuals is unquestionably certain.

To date the writer knows of no standard scale for the measurement of a subject's ability in visual comprehension of inaudible speech. Teachers of the subject score the tests which they administer to their students, for the most part at least, according to their own subjective judgment.

Yet without some objective method of scoring, the rating of the same test paper by two teachers may show marked differences in the final scores. Also it is not an uncommon fact that the scores on a given test paper may vary considerably when graded twice by the same teacher if an interval of time is permitted to elapse between the respective scorings.

The present study was begun by the writer with the hope of providing a scoring technique that would eliminate this possibility of subjectivity in her own work of making an accurate comparison of the ability of students. The method of approach was not an easy one, and diligent examination of the contributions made by authorities in the field of educational tests did not quickly disclose a suitable pattern. At last a method was considered and finally adopted after several essential modifications were made.

While memory is not the sole factor in visual hearing but an all-important one in eliciting the student's understandability of visually comprehended spoken language, it was decided to adopt the scoring technique usually maintained in tests of logical memory. The procedure in such tests is to credit as many ideas as a subject is able to reproduce orally or in writing from a selection read to him. A test of visual hearing differs from that of logical memory only in that in the former the stimulus to the idea is visual, while in the latter it is auditory.

Adopting that technique then, the purpose of this study is to test the ability of a deafened subject to give a visual interpretation of an entire sentence, or of as many ideas contained in that sentence as possible. The question of the

value of these ideas from the standpoint of importance was seriously debated. It is obvious that the subject or central idea of a sentence should receive a higher score than a subordinate thought. But here again the subjective judgment of the rater enters in. Therefore, so as to avoid that factor in this particular experiment, each correctly recorded idea of a sentence receives equal merit, that is, one point, the score for the entire sentence being the sum of reproduced ideas. Further objectivity in measurement is secured by adding a second column of scores for the response to each sentence. By this is meant that in this column full credit is given the student for an entirely correct reproduction of a sentence; if, however, the response falls short of an exact reproduction of the test sentence, no matter how slight the error, no credit is given. In other words, in this column the student is either credited with a perfect reproduction of the test sentence or does not score at all.

Visual hearing tests thus graded make comparisons of individual differences manifested in the responses of large groups of students a standard procedure. Scores thus obtained state definitely the comparative standing of an individual student in the group, of one class with another, of an entire school with other schools. A study of Table I and the scoring of a sample sentence shows that such plan of measuring ability has a tendency to lower the grades of students. It is true that to judge a student by his score obtained on only absolutely correct reproductions tends to underestimate his ability. Nevertheless, in the writer's opinion, it is one means of arriving at a standard norm of just what is meant by visual hearing ability. However, since the objective in visual hearing is primarily the understanding of the ideas contained in an utterance rather than a mere verbatim reiteration of that utterance, due credit is accorded the student for each ideational response. (See Table I.)

A second important phase of this investigation recognizes the existence of widely differentiated visual speech manifestations of various speakers. To those who depend upon visual hearing for their daily contact with an aurally-hearing world, it is a universally recognized fact that the visible

speech characteristics of various individuals present widely diversified speech pattern dissimilarities. Analyses made by kymographic, photographic and other methods of recording the outward manifestations of speech prove that it is practically impossible for the same speaker to give a sentence twice with identical speech movements. Since this is true of the repeated speech of one speaker, it is also possible that the visual speech picture of a sentence spoken by one person may bear but the slightest visual resemblance to that of the same sentence as spoken by another. Thus a spoken statement readily understood as uttered by one speaker may be comprehended only in part or in rarer cases not at all when spoken by another person whose speech may be characterized by a lack of outwardly manifest movements.

The second objective of this paper has concerned itself with the extent to which these speech differences affect their visual understandability. To this end an attempt has been made to record the responses of numbers of students to the visually comprehended speech of two speakers of dissimilar speech characteristics.

Motion picture photography affords the one method of providing constancy of visual speech movements. A motion picture film of a speaker, photographed while delivering a group of sentences, a story or lecture, solves the problem of presenting such material as a test to students of various localities, thus preserving the constancy of visual speech movements for all contestants. The constancy of other factors involved in such a test may likewise be controlled by this method, such as, for example, lighting conditions, distance of projection, rapidity of speech of speaker, and the time of day when test is to be administered.

Following, for the purpose of this study, the motion picture technique of the Visual Hearing Method,[3] two speakers were photographed while speaking ten dissociated sentences. Since words spoken silently tend to become distorted in

[3] Originated in 1930 in Phonetics Laboratories, Ohio State University, by the writer, under the direction of Dr. G. Oscar Russell. The individual drill in all Visual Hearing classes is conducted by the students in a laboratory equipped with a motion picture projector and screen. One hour each day is the required laboratory period.

movement, the sentences were spoken aloud, thus preserving the naturalness of speech.

The materials used in this test and necessary for its successful administration in any situation are: a motion picture projector, a projection screen, film containing photographic record of the speech of two speakers, paper and pencils.

The time for giving the test was kept constant for all contestants. The test was always given at the beginning of each quarter as an introduction to the laboratory work in the author's Visual Hearing classes. It is evident, therefore, that the contestants had had no previous experience in visual hearing. The directions to all groups of contestants were the same. They were told to write what they understood the speaker to say. So as to dispel any fear of the possible effects of a low score on their class rating, and at the same time encourage them to give their best performance, students were told that they were assisting in the working out of a research problem.

The procedure of administering the test followed the same routine for all groups of students. Each student was provided with pencil and test blank. After the directions were given, the film was projected at a regulated speed, the projector being halted after each sentence spoken by the person whose image appeared on the screen. The electric lights were then flashed on, and the contestants were asked to write their reproduction of what the speaker had said. It was deemed advisable to give the test as spoken by the second speaker immediately after that of the first. The sentences given by both speakers were identical; however, this fact was not made known to the students. It was thought best to present first the speaker whose speech movements were more difficult to follow. The logical supposition was that should the speaker whose speech was more easily comprehended give the sentences first the student would naturally understand a greater number of them than if the reverse were true. Consequently *memory* rather than *visual hearing ability* would be the predominating element in the student's reproduction of the visual speech manifestations of the person whose speech was more difficult to understand.

All but sixteen of the subjects to whom the test was administered in this experiment were university students in the writer's classes of Visual Phonetics, in the Phonetics Laboratories, Ohio State University. They had received no previous visual hearing education. The remaining sixteen subjects were members of a league for the hard of hearing, and with the exception of two all had been given instruction in the lip-reading classes sponsored by that organization. The responses of a total of 70 subjects form the statistical data gleaned from this study.

A summary of the important facts mentioned thus far might make clearer the analysis of the data of this experiment:

1. It is possible for a person who cannot hear to understand a conversation, a lecture, sermon or other public address by a psychological transference into thought of his visual impression of the speech and facial gestures of the speaker.
2. A sentence or other unit of connected language uttered by different speakers may be understood with widely varying degrees of ease and accuracy by the same or by different students. The extent to which this is true has not to the writer's knowledge been measured.
3. The scientific approach to the achievement of such ability forms the basic principle underlying the instruction in the writer's classes of university students.
4. Lack of objective methods of scoring tests of a student's ability to visually comprehend inaudible speech usually calls into such operation the subjective judgment of the teacher or rater.

The main objectives of this present problem are:

1. From a study of their oral or written reproductions to determine the individual differences in the ability of students to understand speech that is seen but not heard.
2. To determine from these same reproductions the extent of individual differences that may exist in the visual speech characteristics of two speakers.
3. To provide a simple objective means of scoring these reproductions.

As previously stated, the oral presentation of the test material which was the same for both speakers, comprised ten sentences selected at random from the *Visual Hearing Manual,* the text used in the writer's classes of university classes. The score value of the sentences varied according to the number of ideas each sentence contained. Score values from the standpoint of importance of ideas were disregarded

in favor of greater objectivity in rating and, therefore, each idea in a sentence scored *one* point.

To clarify this point, the sample sentence below is resolved into its ideational components and the total score indicated:

Example:

1	1	1	1	1	1	Total
The silver /	moon /	sank /	behind /	a fleecy /	cloud.	= 6 points

To further illustrate the scoring technique, the following examples of student reproductions are quoted.[4]

1. A perfect reproduction merits the total score of 6 points in both columns.

Column 1	Column 2
+6	+6

2. A reproduction in which several ideas are either lacking or incorrect is scored zero (0) in the first column, and the sum of the correctly reproduced ideas in the second. For example:

1	1		1	Column 1	Column 2
The silver /	moon /	shines——	cloud.	+0	+3

For the purpose of further preserving absolute objectivity in scoring in this study, no credit was accorded any homophenous words which occurred in students' responses, *i.e.*, words having similar or identical visual speech movements.

Table I shows the individual scores achieved by 70 visual hearing students on their respective reproductions of the ten sentences as spoken by two persons. As previously explained, two columns of scores are recorded for the students' interpretation of the speech of each speaker. They are marked "a-1," "a-2" and "b-1," "b-2." In columns "a-1" and "b-1" a student's reproduced sentence that is exactly correct in every detail receives the full credit value that has been apportioned that particular sentence. If there is the slightest error or alteration, no credit is given. To score at all in these two columns, the sentence written by the student must be a verbatim or identical reproduction of the spoken sentence in minutest detail. This rigidity in scoring was adopted for

[4] Column 1 gives verbatim scoring in which student scores only if he reproduces the sentence exactly correct. Column 2 gives ideational scoring in which student scores one point for each idea reproduced.

TABLE I

SCORES OF 70 STUDENTS ON THEIR VISUAL COMPREHENSION OF THE INAUDIBLE SPEECH OF TWO SPEAKERS

Student Number	*First Speaker*		*Second Speaker*	
	Scores on *Verbatim* Reproduction a-1	Scores on *Ideational* Reproduction a-2	Scores on *Verbatim* Reproduction b-1	Scores on *Ideational* Reproduction b-2
1	0	5	15	36
2	4	11	26	34
3	0	6	21	27
4	0	0	6	9
5	0	3	9	20
6	0	3	0	22
7	0	7	22	23
8	4	9	15	29
9	0	4	5	13
10	6	10	17	30
11	0	5	35	38
12	0	6	15	29
13	9	17	39	41
14	10	23	35	37
15	4	15	39	39
16	0	5	10	24
17	6	14	30	43
18	11	22	44	49
19	20	34	44	44
20	26	35	40	49
21	20	29	35	50
22	0	8	26	34
23	10	12	31	40
24	0	0	6	20
25	0	5	9	23
26	0	10	10	24
27	0	9	30	32
28	0	3	11	16
29	0	3	15	24
30	0	10	35	35
31	0	9	20	28
32	10	11	21	31
33	0	0	11	14
34	0	8	36	39
35	4	5	16	17
36	0	7	20	25
37	0	2	21	24
38	6	8	10	18
39	4	16	34	36
40	6	6	11	14
41	0	6	30	37
42	4	12	30	47
43	20	29	26	39
44	9	22	29	45

TABLE I—*Continued*

Student Number	*First Speaker*		*Second Speaker*	
	Scores on *Verbatim* Reproduction a-1	Scores on *Ideational* Reproduction a-2	Scores on *Verbatim* Reproduction b-1	Scores on *Ideational* Reproduction b-2
45	20	24	35	40
46	0	5	39	43
47	0	3	25	33
48	0	5	15	21
49	0	3	5	18
50	0	4	9	24
51	0	7	15	30
52	0	4	15	23
53	0	5	8	18
54	0	2	15	24
*55	4	11	34	40
56	0	3	25	33
57	9	12	30	40
58	0	1	5	15
59	0	4	28	46
60	0	2	30	42
61	5	9	39	49
62	8	15	22	37
63	9	21	29	47
64	4	7	30	40
65	5	15	39	47
66	0	8	31	40
67	0	2	13	33
68	0	1	15	18
69	0	8	19	31
70	0	3	29	39

* Students 55 to 70 were members of classes sponsored by a league for the hard of hearing.

the purpose of maintaining a standard objective rating by which scale there could be no departure toward leniency or prejudice. Thus all papers measured by such scoring method stand for one certain level of achievement.

But, it will be argued, such strict rating defeats the psychological goal of visual hearing ability, namely, by means of synthesis to catch the thought of a speaker's utterance by skips and jumps, so to speak, much as one gleans the thought from the printed page. For a skilled student of this art is often unable to repeat a conversation word for word, yet understands the substance perfectly. Nor does the writer advocate such verbatim reiteration for the purposes of prac-

tical visual hearing contact. The scoring which brings out this point is adopted solely to provide a measuring stick to show the responses of one student as scored either higher or lower than those of another, and by what standard this is true.

In accord then with the feeling that a student should receive credit for a response which is adequate for visual hearing, the written reproductions of all students were scored a second time. Such scores (a detailed explanation of which appears above) appear in columns "a-2" and "b-2" and are based on the ideational value of correct responses. They cover all ideas occurring in each student's reproductions of the ten spoken sentences as spoken by the two speakers. Thus actual merit for practical visual hearing comprehension is accorded.

Analysis of Table I discloses certain significant facts. In a scanning of the scores of column "a-1," the attention of the observer will be immediately focused on the predominance of zeros. This indicates that the majority of students failed to reproduce any of the ten sentences exactly as spoken, although their responses may have been partly or nearly correct. Considering the highest possible score as 50, the extremely low scores in this column stand out significantly. Scores in column "a-2" show slightly higher than those of column "a-1," except for two students, numbers 4 and 33. These two students failed to score in either column. It will be remembered that these two columns "a-1" and "a-2" represent the students' written reproduction of the sentences as given by the speaker whose visual speech was the more difficult to comprehend. It will be noted that the highest score for the reproduction of the speech of the first speaker was achieved by student number 20 who out of a possible 50 points for each columnal scoring received 26 and 35.

Columns "b-1" and "b-2" represent the responses to the second speaker, whose speech movements were believed (by the experimenter) to be more easily understood than those of the first speaker. That this supposition was correct is evidenced by the comparison of columns "a-1" and "a-2" with "b-1" and "b-2." Reading across the four columns, it will

be found that for all subjects except number 6, the scores become progressively larger in each successive column. To express it differently, for all subjects except one the smallest scores are in column "a-1," the next highest in "a-2," higher still in "b-1" and the highest in "b-2." Again, with the exception of subject number 6, both columns of scores for the second speaker are higher than those for the first speaker, indicating undeniably that for this group of students at least, the visible speech of that speaker was the more easily understood.

A more important observation is that with the same exception of the sixth subject the scores on the rigidly rated column "b-1" of the second speaker are higher than those of column "a-2" of the first speaker, in which column credit is allowed for all ideational responses. This seems to indicate conclusively that the second speaker was understood with greater facility than the first.

The highest score in both columns "b-1" and column "b-2" was made by subject number 18, the second highest by subject 19. A comparison of their respective scores is of interest.

Subject 18 scored highest in columns "b-1" and "b-2." There is a difference of 33 points between his "a-1" and "b-1" scores; and 27 points between those of his "a-2" and "b-2" scores. The average of his scores for all four columns is 31.5.

The range of scores for subject 19 is more consistent. A difference of 24 points shows between his "a-1" and "b-1" scores, and 10 points between "a-2" and "b-2" scores. The average score for the four columns is 35.5. The more consistent scores of subject 19, particlarly as they are higher for the first two columns than are those of subject 18, tend to indicate a greater visual hearing ability on the part of the former. The widest difference between scores is that of subject 59 ranging from 0 to 46. This is a unique example of the visual speech comprehension difficulty one speaker may present to a hard-of-hearing person, and the comparative ease of comprehension the speech of another may provide him.

Table II pictures the distribution of scores on both word

for word accuracy of reproduction and on ideational reproduction.

In the column to the left are grouped the range of scores from 0, the lowest, to 50, the highest possible score. In the first column "a-1," 50 scores or 71.4% of the total, lie in the lowest range from 0 to 4, while in column "b-1" for verbatim reproduction of the speech of the second speaker but one individual score occurs in the same class interval. The reverse is also true. In column "a-1" the highest score reaches merely the median level 25 to 29. Only 19 of the entire 70 recorded scores lie between this and the lowest level, 0 to 4.

In column "b-1" there is but one student scoring in the 0-4 level, while the score of another mounts to that of the highest possible score level, 45-50, and there is a scattering of scores in the intervening intervals. The median scores for

TABLE II

DISTRIBUTION OF THE *Verbatim* AND *Ideational* SCORES OF 70 STUDENTS ON THEIR VISUAL REPRODUCTION OF THE INAUDIBLE SPEECH OF *Two Speakers*

Level of Scores	*Visual Reproduction of Speech of First Speaker*		*Visual Reproduction of Speech of Second Speaker*	
	Number of subjects scoring on *Verbatim* Reproduction a-1	Number of subjects scoring on *Ideational* Reproduction a-2	Number of subjects scoring on *Verbatim* Reproduction b-1	Number of subjects scoring on *Ideational* Reproduction b-2
45–50			1	9
40–44			2	11
35–39		1	11	11
30–34		1	10	10
25–29	1	2	10	7
20–24	4	5	7	10
15–19		5	12	8
10–14	4	10	7	3
5– 9	11	26	9	1
0– 4	50	20	1	
Total No. Subjects	70	70	70	70
Median Score	0	7	22	32

the four columns range from 0 to 32. The diagonal scatter of scores in the four columns indicating their relationship tends to establish the reliability of this method of objective rating.

Tables III-A and III-B show the correlation between scores obtained by the 70 subjects on both verbatim and ideational reproduction of the sentences spoken by both speakers. Scores on the visual comprehension of the speech of the first speaker are shown in Table III-A, those of the second speaker in Table III-B. Both tables show an obvious correlation between the two methods of scoring, ideational versus verbatim. Both indicate a need for weighting the ideational scores. The more perfect diagonal scatter of the scores in Table III-B suggests that an undoubtedly closer relationship exists in the student's visual interpretation of the utterance of a speaker whose visible speech manifestations are plainly discernible. It further suggests that the visual hearing student's failure to get a precise picture of what such speaker says, thus rendering his score on verbatim reproduction appreciably low, does not preclude his practical understanding of what has been said, thus meriting a high score in the column for ideational response. It is therefore obvious that to a person dependent upon visual hearing, the second type of speaker would prove a more helpful medium of communication. The low clustering of scores on the 0-4 level in Table III-A points to the contrary. It indicates the difficulty of understanding a speaker who lacks mobility of facial expression. The validity of these deductions is further borne out by the fact that there exists a correlation coefficient of .878 between the scores on the *verbatim* versus *ideational* reproduction of the speech of the second speaker (Table III-B) and a correlation of .909 between similar scores on the reproduction of the speech of the first speaker (Table III-A).

That a visual hearing student is unable to ascertain much in the ideational content of the speech of a speaker whose inflexibility of jaw and facial muscles and lack of emotional expression convey but little to his "visual listener," is further detected in an analysis of Tables IV-A and IV-B. This fact is again substantiated in the discovery

TABLE III-A

CORRELATION OF *Verbatim* AND *Ideational* SCORES OF 70 STUDENTS ON THEIR VISUAL REPRODUCTION OF THE INAUDIBLE SPEECH OF THE *First Speaker*

Scores on *Verbatim* Reproduction of the *First Speaker*	Scores on *Ideational* Reproduction—*First Speaker*										
	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–50	Total
45–50											
40–44											
35–39											
30–34											
25–29								1			1
20–24					1	2	1				4
15–19											
10–14			2		2						4
5– 9		5	2	4	2						13
0– 4	21	20	5	2							48
Total	21	25	9	6	5	2	1	1			70

of a reliability coefficient of .509 in the table of scores on the ideational reproduction of the speech of both speakers

TABLE III-B

CORRELATION OF *Verbatim* AND *Ideational* SCORES OF 70 STUDENTS ON THEIR VISUAL REPRODUCTION OF THE INAUDIBLE SPEECH OF THE *Second Speaker*

Scores on *Verbatim* Reproduction of the *Second Speaker*	Scores on *Ideational* Reproduction—*Second Speaker*										
	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–50	Total
45–50									1	2	3
40–44								6	1	3	10
35–39							1	2	8	1	12
30–34							4	2		3	9
25–29					2	3	1	1			7
20–24				2	4	2	3	1			12
15–19			2	2	2		1				7
10–14			2	3	4						9
5– 9					1						1
0– 4											
Total			4	7	13	5	10	12	10	9	70

TABLE IV-A

CORRELATION OF *Verbatim* SCORES OF 70 STUDENTS ON THEIR VISUAL REPRODUCTION OF THE INAUDIBLE SPEECH OF THE *Two Speakers*

Scores on *Verbatim* Reproduction of the *First Speaker*	Scores for *Verbatim* Reproduction for *Second Speaker*										
	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–50	Total
45–50											
40–44											
35–39											
30–34											
25–29									1		1
20–24						1		2	1		4
15–19											
10–14					1		1	1	1		4
5– 9			2	1	1	2	2	3			11
0– 4	1	9	5	11	5	6	8	5			50
Total	1	9	7	12	7	9	11	11	3		70

(Table IV-B), and a coefficient of .652 in the table of scores on their verbatim reproductions. In Table IV-A the

TABLE IV-B

CORRELATION OF *Ideational* SCORES OF 70 STUDENTS ON THEIR VISUAL REPRODUCTION OF THE INAUDIBLE SPEECH OF THE *Two Speakers*

Scores on *Ideational* Reproduction of the *First Speaker*	Scores for *Ideational* Reproduction for the *Second Speaker*										
	0–4	5–9	10–14	15–19	20–24	25–29	30–34	35–39	40–44	45–50	Total
45–50											
40–44											
35–39										1	1
30–34									1		1
25–29								1		1	2
20–24								1	1	3	5
15–19								3	1	1	5
10–14					1		3	1	4	1	10
5– 9			1	3	4	4	4	3	3	1	23
0– 4		1	2	4	9		3	1	1	2	23
Total		1	3	7	14	4	10	10	11	10	70

students' verbatim reproductions of the sentences of both speakers are brought together, and in Table IV-B the ideational reproductions are subjected to similar treatment. In the latter table, the low ideational content of the reproductions of the speech of the first speaker pull down those of the second speaker so that here also we find a scatter of figures over the lower levels of scores. This fact is significant when one contrasts Table IV-B with Table III-B, where the ideational content of the students' reproductions of the visual speech of the second speaker causes the scores to mount high on the scale. The distribution of scores on the lowest levels of Table IV-A is again attributable to the predominance of zero scores in the students' verbatim interpretation of the speech of the first speaker. Here but one of the 70 students reaches the median score level.

Careful study of the pictures of the first speaker indicated inflexibility of speech muscles, lack of facial expression, whereas the speech of the second speaker reflected animation and clear decisive utterance. In the latter case also the visual comprehension of speech was further facilitated by the play of emotion behind the thought upon the speaker's face, with expressive bodily gesture. These differences between the two speakers may easily account for the almost uniformly higher scores for the second speaker.

In the critical analysis of the tabular data of this entire study, two important points must be remembered:

1. With the exception of sixteen, all students used in this experiment had no previous instruction in visual hearing.
2. All students were unfamiliar with the motion picture technique used in administering the tests.

Summary and Conclusions

In bringing the discussion of this study to a close, the author reaches the following conclusions:

1. The eye becomes the substitute for the ear in the comprehension of speech which is inaudible to the listener.
2. Since such comprehension is visual rather than auditory, this function may be considered "Visual Hearing."

3. There exists a wide divergence in visual hearing ability among different individuals.
4. Some factors involved in these individual differences of ability among those who make use of visual hearing are:
   (a) Defective vision
   (b) Native ability
   (c) Acquired ability through instruction
   (d) Technique of procedure
   (e) Extent of vocabulary
   (f) Differences in intelligence levels (not in all cases)
5. These variations in ability exist not only among different persons, but likewise in the individual's attempt to visually interpret various speakers.
6. The speech characteristics observed in a speaker affect the facility and accuracy with which he is understood by the "visual listener."
7. Some speech manifestations which make for ease or difficulty of visual comprehension are:
   (a) Indistinct articulation of the speaker resulting from inflexibility of facial speech muscles.
   (b) Unrhythmic flow of speaker's utterance.
   (c) Tell-tale emotional traits betrayed by facial expression.
8. These differences in ability to visually comprehend inaudible spoken language are capable of being measured by a scientific objective rating technique.
9. Such objective rating technique as has been employed in this study, when subjected to mathematical formulae, is proven reliable. There exists a correlation between Verbatim and Ideational scoring.
10. Both methods of scoring are objective. The Verbatim Method is a strict measurement of a student's ability. For statistical purposes, it gives an exact status of a student's performance which can be computed and compared.
11. The Ideational Scoring Method, equally objective as here used, gives a true picture of the student's ability to make practical application of Visual Hearing in his daily contacts in an aurally hearing world.

Conference of State Directors and Supervisors of Special Education[1]

SEPTEMBER 26-27, 1938

REPORTS OF COMMITTEE GROUPS

I. *Scope and Place of Special Education*

SPECIAL education should be regarded as an integral part of any adequate educational program and should be conceived as a legitimate means for the wholesome self-realization of those children who are exceptional, as well as a provision for facilitating the total school program. On the basis of this principle the following statements are submitted:

1. The state minimum program should include special educational facilities for all types of exceptional children who cannot be adequately educated in the regular classes of the school.

2. The term "exceptional children" is interpreted to include the following types: Mentally handicapped, all kinds of physically handicapped, mentally superior children, and other types of children in serious need of special consideration, including the neurotic, emotionally maladjusted, and behavior cases.

3. We reaffirm our belief in the essential soundness of the general principle of providing special classes for exceptional children. Such provision should be made regardless of the method followed by the state for the support of its schools.

4. Careful consideration should be given to the possibility of the establishment of joint special classes to serve neighboring school districts.

5. When the establishment of special classes is not feasible, it is the responsibility of the teacher and the administrative and supervisory officers to make some other type of adjustment appropriate to the needs of each child.

6. It is the function of each state to establish standards of admission to each type of special class, such standards to be

[1] Called under auspices of the U. S. Office of Education, Washington, D.C.

sufficiently flexible to make it possible to meet the needs of the various kinds of deviating children.

7. It is recognized that each child's need for special education requires careful scientific investigation. The determination of the need of special education and assignments to special classes should be based upon competent psychological, educational, social, and medical examinations.

8. Opportunity should be afforded for all types of exceptional children to participate with children in regular classes in those activities in which they can work with normal children without detriment to either group.

II. *Problems of Legislation and Finance*

1. The State Department of Education or Public Instruction shall formulate a foundation program and a special educational program which shall include such educational services as are needed for special class pupils.[2]

2. Rules, regulations, and standards for the establishment and administration of the foundation and special educational programs shall be prescribed by the State Department of Education or Public Instruction.

3. Local communities shall contribute according to their financial ability on an equalized basis of support, as adopted by the state, toward the cost of maintaining the foundation and the special educational programs.

4. The state shall defray the difference between (a) the total cost of the foundation and special educational programs, and (b) the amount raised by the effort of local communities, as set forth in 3, above.

5. The State Department of Education or Public Instruction shall approve the local foundation and special educational programs and budgets, and shall audit the local expenditures before granting state aid.

6. Local communities may provide an educational program more elaborate than the prescribed foundation and special programs but without additional state aid.

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[2] The foundation and special programs prescribed by the State shall include school housing, administration, supervision, instruction, operation and maintenance of plant, educational equipment and supplies, transportation, and other auxiliary agencies.

7. In communities where state standards for special classes cannot be met, the State Department of Education or Public Instruction shall formulate an expedient program, which may be achieved through one or more of the following means:

a. Employment of itinerant or traveling teachers.
b. Daily transportation of pupils to larger centers.
c. Housing of pupils in boarding homes in larger centers.
d. Organization of traveling clinical services.
e. Any other suitable plan in cases where the above are not practical.

8. In the administration of such expedient programs the state may grant whatever financial assistance is necessary to bring about an equitable arrangement between local communities, based upon the difference between the total cost and the amount raised through local effort.

III. *Problems of Organization and Administration*

1. There should be a separate and distinct department, division, or bureau of the State Department of Education or Public Instruction charged with the responsibility of the educational program for exceptional children of various types. Since the education of exceptional children is so closely related to elementary education, any assignment of responsibility in the former field to divisions of the State Department of Education or Public Instruction not primarily concerned with educational adjustments for *children* is to be discouraged.

2. The functions of such a division are those indicated on page 9 of Office of Education Pamphlet No. 42. Briefly stated, they include the following:

a. Stimulation of effort in this field of service.
b. Development of standards for the program.
c. Clinical service.
d. Organization and administration of the state program.
e. Supervision of instruction.
f. Co-ordination of related services.
g. Promotion of progressive legislation and practice.

3. In a desirable organization plan for a division of special education, there should be one person charged with respon-

sibility for the entire program. Under this person, as the program develops, there should be supervising specialists in charge of the education of the different groups of exceptional children.

4. We emphasize (a) the advisability of placing in the appropriate division of the State Department of Education or Public Instruction the responsibility of supervision of instruction for all types of exceptional children in both day and residential schools; and (b) the importance of maintaining equally high standards of teacher preparation and instruction in residential and day schools alike.

5. In the State organization, provision should be made for the special education of exceptional children living in rural areas through the development of traveling clinical services, the employment of itinerant or traveling teachers serving a county or a region, and the establishment of county, or regional class centers of instruction. Such suitable provision should be considered a part of the minimum educational program of the state.

6. Recognizing the need for co-operation on the part of all agencies, public and private, interested in the different types of exceptional children, we recommend the development, under the leadership of the schools, of some plan of organized co-operation such as that which may be brought about through "Co-ordinating Councils" composed of representatives of the various groups and agencies concerned with the problems of exceptional children.

IV. *Problems of Personnel*

1. All teachers appointed to instruct in special schools or classes for exceptional children should meet the following *minimum* requirements:

a. A regular state elementary school certificate or (for high-school teaching) a regular state secondary school certificate.

b. At least twelve semester hours of training in approved courses in the field of specialization, such training to be secured either during the course leading to the general certificate noted above or subsequent thereto. It is recognized that the amount of specialized training

needed varies with different types of exceptional children. For some groups specialized training in excess of the minimum here set is essential.

2. Successful experience in the instruction of normal children previous to the assumption of responsibility for exceptional children is a recognized desirable factor in the preparation of special class teachers.

3. A careful selection of all teachers permitted to take credit leading to special certification should be made on the basis of personality, health, interest in the work, and promise of ability to handle exceptional children.

4. The educational needs of exceptional children cannot be met until *all* teachers, those of regular classes as well as of special classes, have developed a sympathetic understanding of child nature. Such an understanding can best be secured through basic courses in child psychology and mental hygiene, and through orientation courses in special education, such courses to be offered both to teachers in training and to teachers in service.

V. *Problems of Relationship of the Office of Education to the Program*

The following appear to the conference desirable functions to be assumed by the Office of Education in relation to the program for the education of exceptional children:

1. To continue and to expand its present position of leadership in research, advisory services, and publication of materials. Suggested studies include:

a. Careful analysis of state legislation and plans for reimbursement, including a field study of scope of respective state programs and organizations for their administration.

b. Study of clinical procedures and personnel for administering.

c. Study of possibilities of developing uniform reporting services so as to make meaningful national statistics available, and at the same time to avoid duplication between the state offices and the Office of Education in the collection of information and data.

d. Compilation of information valuable to teachers on

research findings concerning the abilities, interests, aptitudes, limitations, adaptability, vocational opportunities, and needs of various types of exceptional children.

e. Compilation of data regarding outstanding classroom programs designed to provide for significant group and individual characteristics and differences.

f. Analysis of weaknesses of present programs, with suggestions and assistance looking toward correction.

g. Study of possibility of co-ordinating all Federal services interested in the problems of exceptional children.

2. To develop at stated intervals:

a. A United States directory of special education, including data on the Office of Education, state offices, statistics, state schools, private schools of note, clinical facilities, and the like.

b. Suitable mailing lists for information, research bibliographies, etc.

3. To co-operate in an advisory capacity with regard to legislation in the interests of all types of exceptional children.

4. To promote an annual conference of state directors and supervisors of special education.

In order to carry on the studies and functions indicated above, it is recognized that the present personnel in the Office of Education dealing with exceptional children must be increased by several persons. The conference urgently recommends that this be done.

In addition to the representatives and specialists of the U.S. Office of Education, at whose call the conference was held, the following state officials were present and participated in the deliberations:

A. B. Caldwell, deputy commissioner of education, State Department of Education, St. Paul, Minnesota.

Philip G. Cashman, supervisor of special schools and classes, State Department of Education, Boston, Massachusetts.

Wana S. Clay, state director of special education, State Department of Public Instruction, Cheyenne, Wyoming.

Philip A. Cowen, research assistant, State Education Department, Albany, New York.

Joseph Endres, chief, bureau of physically handicapped children, State Education Department, Albany, New York.

Lillian B. Hill, chief of bureau of mental hygiene, State Department of Public Instruction, Sacramento, California.

Marguerite L. Ingram, supervisor, crippled children division, State Department of Public Instruction, Madison, Wisconsin.

Maud Keator, senior supervisor of special education, State Department of Education, Hartford, Connecticut.

Hazel C. McIntire, supervisor of special classes, State Department of Education, Columbus, Ohio.

T. Ernest Newland, chief, special education, State Department of Public Instruction, Harrisburg, Pennsylvania.

Homer W. Nichols, director of special education, State Department of Public Instruction, Frankfort, Kentucky.

Henrietta V. Race, supervisor, schools for exceptional children, State Department of Public Instruction, Madison, Wisconsin.

R. C. Thompson, supervisor of special education, State Department of Education, Baltimore, Maryland.

J. E. Wallin, director of special education and mental hygiene, State Department of Public Instruction, Wilmington, Delaware.

Harley Z. Wooden, assistant superintendent, State Department of Public Instruction, Lansing, Michigan, now superintendent of the Michigan School for the Deaf.

Revised Curriculum for Third Preparatory Year as Compiled for the Southern Conference of Executives of Schools for the Deaf[1]

Submitted by L. R. DIVINE, *President*, and the Staff of the *Louisiana State School for the Deaf*
Baton Rouge, Louisiana

THE SUBJECTS taught during the third year of school are speech reading, speech, language, reading, and number.

Objectives are listed for social understanding and adjustment as well as for the above listed school subjects, though no separate provision for teaching the social studies as such is included in this curriculum for a third-year class.

The teaching objectives for the year are given below for each subject.

I. SPEECH READING

A. Enlargement of speech-reading vocabulary to take care of routine classroom, dormitory, and playroom situations where the pupil needs direction
B. Enlargement of vocabulary along the lines of pupil interest
C. Acqusition of necessary skill in speech reading which will enable the pupil
   1. To follow a series of connected commands, by carrying in mind three or four instructions given at one time
   2. To reproduce items of four and five sentences in written or spoken form from speech reading
   3. To comprehend and enjoy longer stories given through speech reading
   4. To carry on conversations

II. SPEECH

A. Thorough familiarity with consonant and vowel charts, primary and secondary spellings

[1] Continuation of a Revised Curriculum for First and Second Preparatory Years, appearing in the ANNALS for March and May 1938 (vol. 83, nos. 2 and 3) and May, 1939 (vol. 84, no. 3).

B. Increasing ability to read combinations in longer words at sight
C. Fluency in use of harder combinations
D. Acquisition of vocabulary of words and expressions which will enable the pupil to make his wants known, and provide for conversation at his level of development
E. Fluency in phrasing
F. Ability to recite several songs and short poems

III. Language

A. Ability to get information and ideas from language
B. Ability to express simple wants and needs
C. Ability to communicate ideas

In achieving these ends, the third-year classes will learn the following language principles:

1. The use of verbs
   (a) Written in boxes
   (b) Double verbs
   (c) Work with potential form
   (d) Present progressive tense, declarative and interrogative forms
2. The use of modifiers
   (a) Work with two adjective modifiers
   (b) Phrase modifying phrase
   (c) Adverbs of place and degree
3. The use of question forms
   (a) Answering harder question forms
   (b) Answering calendar questions on months and seasons
   (c) Asking questions on hidden object or unknown action

IV. Reading

A. Recognition of vocabulary used in speech-reading periods in printed form
B. Increasing ability to follow written or printed directions
C. Enlargement of vocabulary
D. Ability to get thought from printed page
E. Growing interest in and enjoyment of reading
F. Class reading of four primers and one first reader

G. Independent reading of, and reporting on, ten very simple books from school library

V. Number

A. Familiarity with the hundred addition and subtraction facts
B. Counting by 1's, 5's to 100
C. Use of ordinals through 31
D. Telling time, railroad time table method
E. Solving simple problems

VI. Social Studies

To provide *through experience* for the child's growth
- (a) In power to understand, interpret, and adjust to the physical and social world in which he lives
- (b) In such ideals, attitudes, and habits as will tend to make his world the better for his presence

A. Understanding
1. A beginning of the ideas
   - (a) That his world extends far beyond the place where he lives
   - (b) That it includes many people besides his family
   - (c) That many people who are far away are helping him live
2. A growing understanding of the nature of group life through finding
   - (a) That some people live in cities, others in towns and on farms
   - (b) That everyone has the same basic needs
   - (c) That police, fire departments, postmen, schools, etc., all contribute toward supplying these needs
   - (d) That we get supplies from the farm
3. A beginning of an understanding of natural phenomena through observing
   - (a) That the sun rises in the east (pointing) and sets in the west (pointing)
   - (b) That clouds may bring rain
   - (c) That rains and sunshine make things grow
   - (d) That aspects of nature change with the seasons

B. Abilities
   1. To work independently
   2. To push each purpose through to some satisfactory conclusion
   3. To control tools of learning such as
      (a) Getting ideas from reading, speech reading, and pictures
      (b) Mastering needed vocabulary in reading, speech reading, speech and writing
      (c) Expressing ideas in language
      (d) Solving simple problems in number
      (e) Giving courteous attention to the speaker in all conversation
   4. To master the following skills
      (a) Telling directions by pointing
      (b) Locating of homes on map of home state
      (c) Telling time

C. Attitudes
   1. A growing appreciation of the value of neat and careful work
   2. A growing sense of the property rights of others
   3. A growing satisfaction in a high quality of work
   4. A growing tendency to be courteous, neat, orderly, fair and honest
   5. A growing interest in animals, birds, and flowers
   6. A growing appreciation of beauty as found in nature
   7. A growing interest in maintaining a clean and sanitary environment
   8. A growing appreciation for proper use of clothing
   9. A growing appreciation for safety and health precautions

D. Habits
   1. The habit of punctuality
   2. The habit of neatness and orderliness
   3. The habit of keen observation
   4. The habit of practising safety measures
   5. The habit of working with a clear specific purpose in mind
   6. The habit of sharing materials and tools

7. The habit of putting things in order

Materials Needed by Third-Year Classes

I. *Books for Teacher's Reference and Use*

Joiner's *Graded Lessons in Speech*
Kent's *Suggestions for Teaching Rhythm to the Deaf*
Buell's *Outline of Language for Deaf Children*
Croker, Jones and Pratt, *Language Stories and Drills*, Book I Teacher's Manual

II. *Textbooks*

Little Friends at School (Happy Road to Reading series). Rand McNally Company, Chicago
At the Farm (Real Life Readers). Charles Scribner's Sons, New York
Wag and Puff, by Marjorie Hardy. Wheeler Publishing Company, Chicago
Elson-Gray Basic Readers, Primer. Scott, Foresman and Company, Atlanta
Thought Test First Reader. University Press, Chicago
Language Stories and Drills, Book I, Croker, Jones and Pratt. The Vermont Publishing Company, Brattleboro, Vermont

III. *Materials*

Several slot charts
Sets of pictures containing third-year vocabulary for use in charts
Sets of printed cards to correspond to vocabulary
Large calendar
Number cabinet
Flash cards for addition and subtraction combinations

Classified Lists for Third-Year Classes

The lists given below are for the teacher's convenience and help. Not every group of children needs to learn every word listed. Additions, substitutions, and eliminations are regularly made in actual teaching practice.

The list of wild animals is taught during the first six weeks of school, which is circus time in the South. The list of domestic animals and their young fits naturally into the primer reading vocabulary. The names of the various parts of the body occur in conversation and news periods. The names of birds are introduced gradually as the birds begin to fly north in the spring. Likewise, the flower list is added to as the spring blossoms come out. The list of materials is built up gradually, and used as a unit just before the introduction of formal work on the question form *What .... made of?*

The list of topics is by no means complete, but is a minimal list in every sense of the word. The folk tales suggested are those which have cumulative effect or repetition, and are easily found in brightly illustrated ten-cent editions for story-telling.

WILD ANIMALS
an elephant
a tiger
a monkey
a squirrel
a bear
a lion
a giraffe
a zebra
a camel
a deer
a fox
a wolf

YOUNG ANIMALS
a colt
a calf
a kitten
a puppy
a lamb
a kid
a chick
a duckling
a bunny
a cub

PARTS OF THE BODY
shoulder
back
elbow
neck
lips
chin
tongue
chest
finger nail

FLOWERS
a daisy
a lily
a violet
a poppy
a rose
sweet peas
petunias
a pansy
zinnias

BIRDS
a cardinal
a bluebird
a woodpecker
a humming bird
a buzzard
an owl
a sparrow
a pigeon
a robin
a parrot
a blackbird
a mocking bird

MATERIALS
wood
paper
leather
glass
rubber
cloth
  wool
  silk
  cotton
metal
  gold
  silver
  iron
  brass
  copper

TOPICS
(For study and for Year books)
Thanksgiving
Christmas
Valentine Day
Washington's Birthday
Lincoln's Birthday
Easter
Mother's Day
The Doctor
The Nurse
The Fireman
The Policeman
The Postman
The Milkman
The Baker and others

STORIES
Chicken-Little
The Little Red Hen
Little Black Sambo
The Three Little Pigs
The Gingerbread Boy
The Three Bears

THIRD PREPARATORY YEAR—FIRST SIX WEEKS

I. *Speech Reading*

A. Review: *Things to Eat, Things to Wear, Rooms in a House* (from Second Preparatory Year Curriculum)
B. New vocabulary: Wild animals
C. Commands: Three at a time
D. Drill stories: Four and five sentences
E. Story telling: One familiar folk tale, told for comprehension and story value
F. Months and seasons chart begun

II. *Speech*

A. Review of element charts
B. Northampton Drill Chart I; begin Drill Chart II
C. Drills for phrasing
D. Review of rhymes taught preceding year (*I See You; Little Boy Blue*)

III. *Language*

A. Original language
   1. News, journals, letters—class and individual
   2. Description of pictures
   3. Topics
   4. Incorporation of new words and language principles into original sentences
B. Language drill
   1. Review of pronouns, prepositions, and verb tense work with *to have* and *to be*
   2. All new principles included in Croker, Jones and Pratt, Book I, pages 1–20
   3. Action work using
      (a) Two adjective modifiers
      (b) Prepositions: *By, around, for, near*
   4. Verbs
      (a) Written in boxes: All forms on verb box blank except progressive
      (b) Elliptical sentences for verb tense drill

5. Question forms
   (a) Review

Is .....?	When .....?	How many ....?
Are .....?	Where .....?	What color ....?
Has .....?	Do .....?	To whom .....?
Have ....?	Does .....?	For whom ....?
What ....?	Did .....?	With whom ...?
Who .....?	Can .....?	What did ... do?
Whom....?	Whose .....?	

   Personal questions
   (b) Used by teacher in connection with reading and conversation

What kind of .....?
Why .....? (Keep very simple)
What happened?

IV. *Reading*

A. *Thought Test* First Reader: pages 1–30
B. *Little Friends at School:* pages 1–50

V. *Number*

A. Review counting to twenty; teach counting to 30
B. Ordinals through 30 (Teach in calendar work)
C. Review previously taught combinations
D. New conbinations

Add:	6	7	8	9	9	2	8	3	9	3
	6	7	8	9	2	9	3	8	3	9
Subtract:	12	14	16	18	11	11	11	11	12	12
	6	7	8	9	2	9	3	8	3	9

Second Six Weeks

I. *Speech Reading*

A. Review: *Things to Play With, Things to Use, Things Outdoors*
B. New vocabulary: Domestic animals and their young
C. Commands: Three connected commands
D. Drill stories: Four and five sentences
E. Story-telling: One familiar folk tale, told for comprehension and story value
F. Months and seasons chart completed

II. *Speech*

A. Northampton Drill Chart II completed: Chart III begun
B. Drills for phrasing
C. Rhyme—*Little Bo-peep*

III. *Language*

A. Original language: See outline for first six weeks
B. Language drill
1. Croker, Jones and Pratt, Book I, pages 21–40
2. Action work: New prepositions: *For, behind, over, at, up, out of*
3. Questions
(a) Developed from Slates, asked by pupils
(b) Hidden object or unknown action games once weekly
(c) For reading and conversation—asked by the teacher
How .... feel?
Further work on Why ....?

IV. *Reading*

A. *Thought Test* First Reader, pages 31–70
B. *Little Friends at School*, pages 50–122

V. *Number*

A. Counting to 100
B. Combinations

Add:	7	4	8	4	9	4	5	6	5	7
	4	7	4	8	4	9	6	5	7	5
Subtract:	11	11	12	12	13	13	11	11	12	12
	4	7	8	4	4	9	5	6	7	5

C. Simple problems

THIRD SIX WEEKS

I. *Speech Reading*

A. Review: *Vegetables, Things to Eat, Things to Wear*
B. New vocabulary: Parts of the body
C. Stories and commands: See Second Six Weeks

II. *Speech*

A. Northampton Drill Chart IV
B. Drills for phrasing
C. Verse—*Rock-a-bye Baby*

III. *Language*

A. Original language: See outline for First Six Weeks
B. Language drill
1. Croker, Jones and Pratt, Book I, pages 41–60
2. Action work
(a) New prepositions: *Off, after, beside, down*
(b) Double verbs: *Put on, took off, hung up*

IV. *Reading*

A. *Thought Test* First Reader, pages 71–100
B. Primer: *At the Farm*—pages 1–51

V. *Number*

A. Counting to 100 by tens
B. Combinations

Add:	5	8	5	9	6	7	6	8	6	9
	8	5	9	5	7	6	8	6	9	6
Subtract:	13	13	14	14	13	13	14	14	15	15
	8	5	9	5	7	6	8	6	9	6

C. Simple problems

FOURTH SIX WEEKS

I. *Speech Reading*

A. Names of birds
B. Commands using *one, the other; some—the others*
C. Stories of five or six sentences
D. Story-telling: Folk tales for comprehension and story value
E. Present progressive tense of verbs, declarative and interrogative forms

II. *Speech*

A. Northampton Drill Chart V.

B. Rhythmic work for fluency
C. Verse—*Little Miss Muffet*

III. *Language*

A. Original language: See outline for First Six Weeks
Introduce adverbs of degree—*rather, very, very much, a little, almost*
B. Language drill
1. Croker, Jones and Pratt, Book I, pages 61–80
2. Action work: New prepositions—*between, by*
3. Verbs
(a) Present progressive tense, declarative and interrogative forms
(b) Begin work on *can* and *cannot*
4. Question work: How much did .... cost? What happened?

IV. *Reading*

A. Real Life Reader: *At the Farm:* pages 52–117
B. Elson-Gray Primer: pages 7–65.

V. *Number*

A. Counting to 100 by fives
B. Combinations

Add:	9	6	9	7	9	8	7	8	0	0
	6	9	7	9	8	9	8	7	0	5
Subtract:	15	15	16	16	17	17	15	15	0	1
	6	9	9	7	8	9	7	8	0	0

C. Simple problems

Fifth Six Weeks

I. *Speech Reading*

A. Begin names of common flowers and materials
B. Commands using *one of ...., both of*
C. Drill stories of six or seven sentences
D. Story telling: Folk tales for comprehension and story value
E. Telling time, railroad time-table method: 3:15, 4:40, etc.

II. *Speech*

A. Northampton Drill Chart VI
B. Drills for fluency
C. Verse

III. *Language*

A. Original language: See outline for First Six Weeks
B. Language drill
1. Croker, Jones and Pratt, Book I, pages 81–100
2. Action work
(a) Thorough review of prepositions for the year
(b) Adverbs of place: *Here, there*
3. Verbs
(a) Written in boxes
(b) Work with *can, cannot*
(c) Verb tense drills
4. Questions: What .... made of?

IV. *Reading*

A. Elson Gray Primer: pages 68–140
B. *Wag and Puff*, pages 1–35

V. *Number*

A. Combinations

Add:	1	0	2	0	3	0	4	0	5	0
	0	6	0	7	0	8	0	1	0	2
Subtract:	1	2	2	3	3	4	4	5	5	6
	1	0	2	0	3	0	4	0	5	0

B. Simple problems

Sixth Six Weeks

I. *Speech Reading*

A. Names of common flowers and materials
B. Review work of year

II. *Speech*

A. Northampton Drill Chart VII
B. Review work of the year

III. *Language*

A. Original language: See outline for First Six Weeks

B. Language drill

1. Croker, Jones and Pratt, Book I, pages 101–120
2. Action work
   (a) Contrast one—the other
   one of them—the other
   one of the boys—the others, etc.
   (b) Verbs: Can, cannot
   (c) Questions
   Why ....?
   What shape ....?

IV. *Reading*

A. *Wag and Puff* completed

V. *Number*

A. Combinations

Add:	6	0	7	0	8	0	9
	0	3	0	4	0	9	0
Subtract:	6	7	7	8	8	9	9
	6	0	7	0	8	0	9

B. Simple problems

Outline of Composition Work in the Intermediate Grades of the California School

By Mary W. Robinson, B.A.
Supervising Teacher in the California School
Berkeley, California

I. Objectives for Composition Work in the Intermediate Grades

1. The ability to construct a paragraph of five or six sentences upon a subject within the range of the child's knowledge or experience.
2. The power to write a short letter in correct form.

II. Points to be Looked for in Composition Work

1. Good sentence construction
2. No glaring grammatical errors
3. An understanding of the fundamental qualities of paragraph construction
4. Some evidence (above the fourth grade) of the value of *picture* words
5. Proper punctuation
6. Correct spelling

III. General Procedure for All Composition Work

1. All work planned and organized *in thought*, before anything is spoken or written
2. All work *edited by each pupil*, before it is regarded as finished and ready to be presented to the teacher
3. A critical constructive attitude developed toward the work of classmates

IV. Composition Outline Intermediate Grades

1. Letters—all types
   Notes—various types
   Invitations and correct form of reply to invitations

2. Descriptions of
   A. People
   B. Rooms
   C. Buildings
   D. Objects
3. School News
4. Current Events
5. Topics
   A. The material arises out of different subjects and current happenings
   B. Personal experiences of the pupils
6. Menus
   A. How to read a menu or bill of fare
   B. Preparing good menus for daily meals
   C. Making up menus for special holidays and parties
7. Word-Picture Work
   A. Developing a paragraph from a word or phrase
   B. Expressing in prose the mental image found in a short poem
8. Weather
   Charts and records kept as part of the initial geography work
9. Original Questions
   A. The questions that can be asked in preparation for a topic
   B. Informational questions on some incidental experience not shared by the entire class
10. Original Sentences
    A. Vocabulary drill
    B. Review of language principles
    C. Sentence structure
11. Stories
    A. Original stories about a picture
    B. Stories completed from a dramatic point
    C. Dreams
    D. Original stories
12. Brief Character Sketches of
    A. Famous people
    B. Members of the class

C. People they know very well

13. Paragraph Work
(Based on the Sheridan Language Plan)
14. Daily or Incidental Happenings
15. News Items for School Paper
16. Making Outlines
    A. Simple form
    B. Regular outline form
17. Book Reports (Brief nature)
18. Word Study
    A. Aimed at a choice of "color" and "picture" words that express the exact thought involved and make the mental image clearer
    B. Listing adjectives that can be used to describe a specified noun
    C. Listing adverbs that express and add to the action denoted in the verb
    D. Verbs that change the entire meaning of a sentence
19. Riddles
20. Jokes and Humorous Incidents
21. Directions and Rules
    A. Giving explicit and general directions
    B. Rules for playing a game
22. Oral English

Note: In this type of composition work the pupils are allowed to follow individual interests. Whenever a pupil is desirous of seeking further information on some topic, he is encouraged to use the reference books in the library or any other source that will furnish the desired information. Then he reports to the class during one of these periods. The report should be brief and clear. This work teaches pupils how to use reference books and broadens the scope of their knowledge. The pupils acquire poise and confidence as they stand before their classmates and deliver their reports.

The classmates criticize constructively the delivery and the subject matter.

References

Sheridan Language Series, Speaking and Writing English, Grades 3–8, Sheridan-Kleiser-Mathews, Benj. Sanborn & Co.

Daily Life Language Series, Grades 3–8, R. L. Lyman—R. I. Johnson, Ginn & Co.

New Method In Composition, Grades 3–8, Boylan-Fuller-Taylor, Charles Scribner's Sons.

Outline of Language Work, Books I and II, Edith M. Buell, 15 Prescott Ave., Bronxville, N.Y.

Miscellaneous

I. S. F.

The Eighteenth Regular Meeting of the Conference.—On invitation of the authorities of the Columbia Institution for the Deaf, and culminating a series of special events that began in the spring of this year in commemoration of the 75th Anniversary of Gallaudet College, the Conference of Executives of American Schools for the Deaf held its Eighteenth Regular Meeting in Washington, D.C., from Monday evening, October 23, to Friday, October 27, inclusive. More than 40 heads of schools as active members were present, with a good representation of principals present as associate members. The headquarters for the Conference was the Dodge Hotel, and sessions were held at both the hotel and Gallaudet College.

The meeting was an outstanding one in many respects. Among the noteworthy features were the opening reception in honor of the distinguished visitors by Dr. and Mrs. Percival Hall on Kendall Green, a session at which the Conference heard the cause of higher education for the deaf ably argued by a number of graduates of Gallaudet College who have themselves attained prominence in education, science, the world of books, and industrial management, and a well balanced daily program of papers and discussions on questions bearing vitally on the efficient conduct of schools for deaf children. The major topics dealt with measures for medical care and prevention of deafness, the coordination of school activities, research and curriculum revision at Gallaudet College, normal training for colored teachers, supervision outside of school hours, the preschool movement, legal provisions among schools for the deaf, the status of vocational training, vocational guidance, discipline, the hard-of-hearing child and provision for his education, the school library, and the problem of school reports, grading and classification. The papers presented on these subjects evidenced a high degree of excellence in preparation.

Sightseeing tours in and about the city of Washington, a

special program presented by the students of Gallaudet College, inspection of the classes and work of the College and of Kendall School, and a banquet tendered by the Columbia Institution for the Deaf helped round out the schedule for the week.

The entire program, carefully planned by the executive committee, and conducted with precision and efficiency by the presiding officers, was one of dignity as well as cordiality and the quality of its discussions made it a forum from which only constructive results will follow.

At its business session the Conference elected the following officers for the next triennial period:

President—Dr. Percival Hall, District of Columbia
Vice President—Dr. A. C. Manning, Pennsylvania
Secretary—Supt. Edmund B. Boatner, Connecticut

Later issues of the ANNALS will carry a full report of the proceedings.

The New Executive Committee of the Conference.—At its Washington Meeting, the Conference of Executives of American Schools for the Deaf voted in business session, October 25, 1939, to fill vacancies in its Executive Committee occasioned by resignation and expiration of terms. Dr. Percival Hall, for many years chairman of the Committee, Mr. Madison J. Lee of Kentucky, and Dr. Frank M. Driggs of Utah, retiring president of the Conference, completed their elected terms, the last-named as *ex officio*. Dr. Alvin E. Pope, whose term was to have continued until 1942, resigned on retiring as head of the New Jersey School.

To fill these vacancies, Dr. Driggs was elected to Dr. Pope's uncompleted term, and Dr. Hall was returned to the Committee, *ex officio* in his capacity as president of the Conference. Two additional members were elected to full terms, 1939–1948, namely, Mrs. H. T. Poore of Tennessee and Mr. Leonard M. Elstad of Minnesota.

The new committee at its first meeting for purposes of organization appointed Dr. Ignatius Bjorlee, 1942, its new chairman. The other incumbent members, with duration of terms, are Mr. Elwood A. Stevenson of California, 1945, and Dr. Clarence J. Settles of Florida, 1945.

To this committee is entrusted the management of the affairs of the Conference, including direction of the ANNALS, official publication of the organization.

Further Changes in Executive Positions.—To the list of changes in positions of heads and principals of schools noted in the ANNALS for September should be added the following:

Because of ill-health, Mrs. Mabel V. Lacy has retired as principal of the Territorial School at Honolulu. The place thus made vacant has been filled by the appointment of Mr. Sam D. Palmer, previously on the staff of instruction of the school.

Mr. K. D. Sanders, previously an instructor in the Austine School in Vermont, has become principal of that school, taking the place of the former head, Mrs. Edith Burbank.

Dr. Alvin E. Pope, for more than 20 years able superintendent of the New Jersey School and builder of its present beautiful school plant, has because of ill health relinquished his place as head of the school. The new head, chosen as acting superintendent, is Mr. C. Milton Jochem, previously principal of the boy's vocational department.

Mr. Karl C. Van Allen, formerly an instructor in the Ontario School, has been appointed principal of the Halifax School to fill the place made vacant by the resignation of Mr. George Bateman.

In the Iowa School, the vacancy in the principalship of the academic department has been filled by the appointment of Mr. John G. Nace, formerly instructor in the Pennsylvania School.

Mr. Myron A. Leenhouts, of the staff of the Rochester School, has been appointed principal of the school department.

Dr. Ganey.—Superintendent J. S. Ganey, head of the Alabama Institute for Deaf and Blind, was granted the honorary degree of Doctor of Laws by Howard College, Alabama, at its closing exercises last spring. This award comes as fitting recognition of a career of distinguished service in the education of the handicapped. Dr. Ganey now also holds the office of president of the national association of instructors of the blind.

Normal Training for Negro Teachers of the Deaf.—Provision for adequate training for Negro teachers of the deaf has become a pressing problem, so much so that the subject was given special attention on the program of the recent meeting of the Conference in Washington.

There is evidence, too, that effort is being made to attack the problem directly, as may be seen by the following statement which appeared in the September 1939 issue of the *Newscaster*, school paper of the West Virginia Schools for Colored Deaf and Blind, at Institute, W. Va.

> Through the efforts of President Davis, Dr. Potts, Dean Ferrell, and the splendid cooperation of Governor Holt, Superintendent Trent, and the members of the Board of Control, special courses for teachers of the deaf and blind were offered at West Virginia State College during the summer session. The courses included: Problems in the Education of the Deaf, The Language Development of Deaf Children, Primary Steps in the Development of Speech, Instructional Problems in the Education of the Blind, Special Techniques and Appliances, Directed Observation and Practice Teaching.
>
> The special instructors were Dr. P. C. Potts, assistant director of the American Foundation for the Blind, Mr. Justin P. Dozier, member of the faculty of the New York School for the Deaf, and Miss Georgia Lee Abel, of the Iowa School for the Blind.
>
> This is the first time such courses have ever been offered at any Negro College in the country, and the venture was watched with much interest. Teachers from Virginia, South Carolina, New Jersey and West Virginia registered for the courses. In every way the experiment was a complete success, and it is hoped that other courses in these fields of special education will be offered each summer.

Copies of Convention Proceedings Available for School Libraries.—Professor Edith M. Nelson, librarian at Gallaudet College, announces that a supply of back volumes of Proceedings of the Convention of American Instructors of the Deaf are now available for distribution among schools for the deaf that may wish to have them for their library shelves. As it is desired to make the best possible disposition of this valuable reference material, this offer is at present limited to schools and libraries. The volumes go back to the 13th Meeting of the Convention at Chicago in 1893. The only numbers missing from the series are the Proceedings for the 14th, 15th, 18th and 29th Meetings.

Schools desiring to take advantage of this opportunity to fill in their sets of these volumes are asked to write to Professor Nelson, Gallaudet College, Washington, D.C. The only request made is that expressage or postage be remitted.

Effects of Airplane Noise on Aviators.—An editorial in the *Journal of the American Medical Association*, October 28, 1939, discusses the effects of airplane noise on aviators.

Experimental evidence has revealed that continued stimulation of the ear by intense sound will bring on nerve fiber degeneration in the cochlear mechanism, with resultant deafness for the specific sound vibrations in the stimulus. Early investigators discovered that the prolonged noise of high-powered aeroplane motors produces at least a temporary lessening of hearing acuity, but that continued exposure of this kind without protection for the ears may mean permanent injury to the hearing organ. Recent English investigators have determined that the noise of certain types of multiple-engine aircraft reaches levels of intensity harmful to human ears. In repeated tests on men in the Royal Air Force only as few as 100 hours of regular flying without head covering in enclosed cockpits resulted in impairment of hearing in the high frequency range. Increased intensity and duration of the disturbing stimulus for even so short a period as two minutes result in aural fatigue symptoms. Prolongation of this kind of excitation causes a higher degree of immediate loss of sensory power with slower recovery, until finally the temporary loss becomes a chronic one, and still further exposure produces cochlear degeneration.

Continued experimental investigation has sought to determine the conditions in flying that will assure maximum protection of hearing. In flight, noises generate from three sources—engine exhaust, the propeller and the wind stream. If the aviators sit well forward in the machine, in front of the engines, the effect is not nearly so severe with respect to hearing as when they are in position below or between the engines. It was also learned from tests that packing the outer auditory channel with absorbent cotton soaked in petrolatum was an effective protective measure. A high-altitude helmet with ear phones attached also proved a safeguard against auditory loss for high tones.

Certification.—Report is here made that receipt of additional applications for Teachers Certificates brings the

total number to 1034. The following new names are to be added to the lists previously published.

Hal Edward Adcock, Arkansas School
Virginia Allen, Texas School
Marie Louise Coretti, Maryland School at Overlea
Jean Dowler, New Jersey School
Otis Cain Findley, Kendall School
Lillian Hahn, Maryland School at Overlea
Frances Lajeunesse, Louisiana School
J. Barclay Mayberry, New Jersey School
Frances McClave Merrill, Mystic Oral School

A Study of the Intelligence of the Hard-of-Hearing School Child.—In the *Pedagogical Seminary and Journal of Genetic Psychology*, September, 1939, appears a report of a study by Rudolf Pintner and Joseph Lev of Teachers College, Columbia University on The Intelligence of the Hard-of-Hearing School Child. This study, carried out with the aid of the New York League for the Hard of Hearing and a W.P.A. project assistance, employed two different kinds of tests, one verbal (the Pintner Intelligence Test) and the other a non-language intelligence test (the Pintner Non-Language Mental Test).

The hard-of-hearing children who were included in the study had been selected after tests with the 4A and 2A audiometers and after they had had individual otological examinations, hearing loss being measured as average loss in the speech ranges.

Two separate group comparisons were made. In the first place, 1404 hard-of-hearing and 1556 normal hearing children, all out of Grades 5 to 8 inclusive in the New York City public schoools, were given the verbal Pintner Intelligence Test. In the second part of the study 315 hard-of-hearing and 372 normal hearing children were tested by means of the Pintner Non-Language Mental Test.

The mean IQ on the verbal test for the normal hearing group was found to be 100.6 while for the hard-of-hearing group it was 94.7, a difference that was shown to be statistically significant. Further, the mean for the very hard of

hearing was 92.4, that is, lower than the IQ for the entire acoustically handicapped group.

The results for the non-verbal intelligence test were quite different; this time the mean IQ for the hearing group was 102.2 whereas for the hard-of-hearing group it was 99.3, a difference that yielded no critical ratio, that is, was not statistically significant. Nor was there any difference in this test between the severely hard of hearing and the total hard-of-hearing group. These comparisons, substantiated by correlations, appeared to indicate that the intelligence difficulty of the hard of hearing in these groups was largely of a verbal nature, and that when this difficulty was eliminated the study revealed no essential difference in intelligence between the hard-of-hearing and the hearing groups.

The interpretation of the authors is that the hearing loss makes it somewhat more difficult for the child to acquire the same language proficiency attained by the ordinary hearing child, which of course would be reflected in the results of a verbal intelligence test. This language deficiency makes it a little more difficult to keep up with the normal hearing child in his progress through the grades. He scores a little lower on the usual educational achievement test. School work is predominantly dependent upon verbal achievement, hence the slight handicap of the hard-of-hearing child, at least in the grades. This slight retardation in language is reflected in the usual verbal intelligence test, and therefore the lower verbal IQ of the hard-of-hearing group. If we take this verbal IQ as a measure of general intelligence, we would be bound to conclude that the hard-of-hearing child is somewhat lower in general intelligence than the hearing child. We do not subscribe to this conclusion. Intelligence can be measured in other ways than by means of language. Where a handicap in the acquisition of language occurs, a verbal intelligence test is not the best means for a measure of general intelligence. A non-language test should be used. When we use such a test, we find that the difference in IQ between the hard of hearing and the normal hearing is reduced practically to zero. Our conclusion therefore is that there is no real difference in basic general intelligence between hard-of-hearing and normal hearing school children in the grades. The hard of hearing suffer from a very slight handicap in the acquisition of language which is reflected in their scores on verbal intelligence tests and in the academic part of their school work.

A Report on Children With Defective Hearing.—Among the many studies in recent years of the problem of the acoustically handicapped child, a most helpful one is that carried out by a Committee of Inquiry acting for the British Board of Education. After four years of careful investigation, including the work of subcommittees and the hearing of

numerous authorities, including physicians, educators and other experts, the committee has issued a volume giving its findings: Report of the Committee of Inquiry into Problems Relating to Children with Defective Hearing.

Within the 150 pages of this report is condensed a wealth of information and suggestion concerning children with auditory handicap, with particular attention to the class ordinarily known as hard of hearing. The scope for the committee's study was originally set as an inquiry into the medical, educational and social aspects of the problems confronting children suffering defects of hearing just short of complete deafness, an assignment quite completely covered by the array of data spread out in the ten chapters and appendices of the report. Among the subjects treated are Causation, Prevention and Treatment of Defective Hearing; Methods of Testing Hearing; Classification of Children with Defective Hearing; Educational Provision; Preparation for Employment, Placement and After-Care; Training and Qualifications of Teachers; Hearing Aids for School Children; Incidence of Defective Hearing in School Children; and Intelligibility-of-Speech Tests.

Perhaps the most striking recommendation of the Report has to do with the classification of children with defective hearing. This recommendation insists that such a classification should be formulated on an educational basis, not on degree of loss of hearing or of stage of speech development or language growth. Such a classification, is the conclusion, would best serve administrative and scientific purposes.

Since the report develops largely around this classification, we take the liberty of giving it here in detail.

Grade I

This Grade consists of children with defective hearing who can, nevertheless, without special arrangements *of any kind*, obtain proper benefit from the education provided in an ordinary school—elementary, secondary or technical.

The children in this Grade can hear and understand conversation at 20 feet and over in ordinary classroom conditions. They have a hearing loss up to about 15 decibels (G. A., *i.e.*, gramaphone audiometer) or 35 decibels (P. T. A., *i.e.*, pure tone audiometer). They can be educated in an ordinary school without *any* special adjustments being made. This group also includes some children with greater hearing loss whose speech and language development are good and who lip read well. The hearing of many of the children

in this Grade would benefit from medical treatment, but they do not require the use of hearing aids in school.

The number of children in Grade I is estimated to lie between 50 and 80 per thousand children in average attendance at elementary schools.

Grade II

This Grade consists of children whose hearing is defective to such a degree that they require for their education special arrangements or facilities, but not the educational methods used for deaf children without naturally acquired speech or language. These facilities range from a favorable position in the ordinary school classroom to attendance at a special class or school.

The children in this Grade can hear and understand conversation between 20 feet and 2 feet away in ordinary classroom conditions. They have a hearing loss between 15 and 40 decibels (G.A.) or 35 and 60 decibels (P.T.A.). By reason of their defect they cannot be properly educated without special arrangements or educational facilities. At the same time their hearing defect is not sufficiently severe for them to need education by the methods used for deaf children without naturally acquired speech or language. Into this Grade come those children whose hearing defect is worse than that described above but whose speech and language development are not seriously defective. The hearing of a certain proportion of the children in this Grade would benefit from medical treatment, and most of them can be helped by the use of hearing aids.

Children of this Grade are divided into two groups on the ground that they require different educational provision. The distinction between them is made on educational grounds, and not on those of degree of hearing loss or of development of speech or language.

Grade IIA

This Grade consists of those children within Grade II who can make satisfactory progress in ordinary classes in ordinary schools provided they are given some help, whether by way of favorable position in class, by individual hearing aids, or by tuition in lip-reading.

The number of children in Grade IIA is estimated to lie between 0.5 and 2 per thousand children in average attendance at elementary schools.

Grade IIB

This Grade consists of those children within Grade II who, even with the help of favorable position in the class, individual hearing aids or tuition in lip-reading, fail to make satisfactory progress in ordinary classes in ordinary schools.

Children in this Grade should be regarded as "deaf" . . . and should not be left in ordinary schools.

The number of children in Grade IIB is estimated to be 0.5 per thousand children in average attendance at elementary schools.

If the terms "hard of hearing" and "partially deaf" are used, they should be employed only to describe Grade IIA and Grade IIB children, respectively.

Grade III

This Grade consists of children whose hearing is so defective and whose speech and language are so little developed that they require education by methods used for deaf children without naturally acquired speech or language. It includes the totally deaf.

The children in this Grade can hear and understand conversation at not more than 2 feet, if at all, though they may be able to hear vowels, with or without distinguishing between them, at distances greater than 2 feet. Their hearing loss is over 40 decibels (G.A.) or 60 decibels (P.T.A.), and may be total. Their speech and language, if any, are seriously defective, and, because of their loss of hearing, cannot be developed except by the methods of teaching applicable to deaf children who have not acquired speech and language naturally. This Grade does not include any children whose speech and language development are not seriously defective. The hearing of few children of this Grade can be improved by medical treatment, but many can be helped by the use of hearing aids.

The number of children in Grade III is estimated to lie between 0.7 and 1.0 per thousand children in average attendance at elementary schools.

The Report also cautions that the assignment of a child to any one of the designated Grades according to the criteria set out above should be regarded only as provisional, until experience finally determines the best steps to take for each child.

The Report is published by His Majesty's Stationery Office, York House, Kingsway, London, W.C.2, and costs 2s. 6d. net per copy.

War Precautions for the Deaf.—According to a brief note in the Washington *Evening Star*, November 2, 1939, residents of Doncaster, England, have made an arrangement by which deaf persons, to be assured of being awakened in case of air-raid alarm, hand their house key each night to a neighbor who will call them if necessary.

State Assistance in the Preparation of Schoolroom Materials.—*Public Education*, Monthly Bulletin of the Pennsylvania State Department of Public Instruction, in its September 1939 edition, refers to plans in contemplation for the construction of improved classroom materials for use by schools for the deaf in that state. The statement follows.

With the assistance of W.P.A. personnel, the Department of Public Instruction is now carrying on a special study in Pennsylvania's several state-aided and state-owned residential schools for the deaf. The results of tests administered to deaf children in these institutions are being reviewed to discover ways and means of giving better educational services to these handicapped pupils.

From this study the department plans to prepare instructional

materials better adapted to the special needs of hard-of-hearing and deaf children. These instructional materials will be made available not only to children in the residential schools, but to handicapped children in the public schools thoughout the State. The education of deaf children constitutes a highly specialized problem, and the Department is developing a program that will meet the needs of these pupils as effectively as possible.

N.F.D.S.P.—At its Twenty-Second Annual Meeting held in St. Louis, February 17-19, 1939, the Society of Progressive Oral Advocates adopted a new name for the organization. Henceforth it is to be called the National Forum on Deafness and Speech Pathology.

Psychoneurotic Tendencies of Deaf Children.—In a continuation of a prior comparative study by Springer of the psychoneurotic responses of deaf and hearing school children, using the Brown Personality Inventory, Dr. N. Norton Springer and Mr. Sydney Roslow state in an article in the *Journal of Educational Psychology,* November 1938, that statistically significant differences were found as between the two types of children. These differences seemed to indicate a more pronounced neurotic tendency in the deaf children studied.

The salient points of the article are contained in the following Summary and Conclusions:

The Brown Personality Inventory was given to 59 pairs of deaf and hearing children in order to determine whether there are any group differences between deaf and hearing children in their manifestations of maladjusted behavior, as measured by their psychoneurotic responses. The groups consisted of children between the ages of twelve and fourteen years. They were closely matched and equated on the basis of age, sex, intelligence, general social status, and nationality, and were found to be comparable on these variables.

The neurotic scores of the deaf children were much higher and more unfavorable than those received by the hearing children. The mean difference between the deaf and hearing was of a high degree of statistical reliability. The deaf children fell within the "very poor adjustment" category, while the hearing children made an "average adjustment." These results are in close accord with those reported by Springer in regard to the high neurotic scores of older deaf children.

The deaf children gave more neurotic responses, which were reliably higher than those of the hearing children, on 44 items of the inventory. The situations on which they differed can be classified under the general headings of physical symptoms, general social adjustment, home situation, and school adjustment. These situations are the same as those reported by Brown for a group of neurotic

hearing children. None of the individual items on which the deaf children differed from the hearing children tend to show the deaf as a unique group.

The extent to which the sensory defect itself, regardless of the psychological significance, affected the deaf children's response to the individual items on the Brown Personality Inventory was studied by means of the opinion of a group of psychologists and a group of superior deaf adults. The majority of both groups agreed that the response to five items would be conditioned by the deaf children's sensory defect. When these items were eliminated, the difference between the means of the deaf and hearing children was increased slightly. These results indicated that the sensory defect did not invalidate the use of this inventory with the deaf children.

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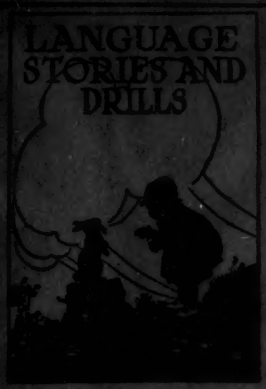

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